DOCUMENT RESUME

ED 085 064 JC 740 015

| | |
|---|---|
| AUTHOR | Alfred, Richard L., Ed. |
| TITLE | Student Attrition: Strategies for Action. |
| INSTITUTION | Metropolitan Junior Coll. District, Kansas City, Mo. |
| PUB DATE | Oct 73 |
| NOTE | 134p.; Proceedings of a conference sponsored by GT-70 |
| EDRS PRICE | MF-$0.65 HC-$6.58 |
| DESCRIPTORS | *Community Colleges; Conference Reports; *Dropout Prevention; *Dropout Problems; *Junior Colleges; Post Secondary Education; *School Responsibility |
| IDENTIFIERS | *Student Attrition |

ABSTRACT

Four main objectives of the conference reported in these proceedings were: (1) to provide a basic orientation for two-year college faculty and administrative personnel as to what student attrition is and the types of impact that it has upon the institutional setting; (2) to interpret the vocabulary pertinent to student attrition, identifying new terms as well as those terms which are traditional but appear under a new title; (3) to examine the impact of student attrition upon various organizational components of the community-junior college; and (4) to realistically appraise the current status of student attrition in the community-junior college, and to develop an operational model for application of institutional techniques to the problem of attrition. The following papers are provided: I. Introduction to the Phenomenon of Student Attrition in the Community-Junior College, by Richard L. Alfred; II. Student Attrition: The Institutional Climate, by Alice J. Thurston; III. Student Attrition: A Methodological Perspective, by Richard L. Alfred; IV. Student Attrition: A Student Viewpoint, by Stephen R. Brainard, Edison O. Jackson, and Bessie Thomas; V. Student Attrition: The Student Personnel Climate, by Alice J. Thurston and Stephen R. Brainard; VI. Student Attrition: The Academic Climate, by Frank Christensen; and VII. Future Research Activity Focused on the Phenomenon of Student Attrition, by Richard L. Alfred. An appendix and bibliography are included. (DB)

# STUDENT ATTRITION:

# STRATEGIES FOR ACTION

The Proceedings of a Conference
Sponsored by G'-70

edited by

Richard L. Alfred, Ed.D.

Office of Educational Planning
and Research

Metropolitan Junior College District

Kansas City, Missouri

October, 1973

# PREFACE

Student attrition has been the subject of an extensive body of research literature for many years, but the phenomenon--characterized in such terms as "dropout," "student mortality," and "academic failure"--is not yet uniformly defined. Whatever the definition, the concept of student attrition, with its widespread ramifications in the education and social realms, transcends the more personal psychology of the individual. It is a phenomenon which highlights a fundamental premise of symbolic interaction theory--that interaction of the student within an individual-group-setting relationship is the framework for personal structuring of verbal and non-verbal behavioral outcomes in higher education. Therefore, intensive investigation of the problem of student attrition is one of the great contemporary issues of public higher education; an issue extended recurrent consideration in terms of manifest institutional goal objectives of the two-year college toward salvage, redirection, and custody of students from diverse ability, achievement, and socioeconomic subcultures of American society.

The study of student attrition, its causes and ramifications, cannot be conducted in isolation characteristic of a laboratory setting; it must be related to the entire educational structure. A rather common practice has been to describe the comprehensive community college as an extremely heterogeneous institution in terms of its diverse student

population. The student population is characterized in terms of variation in academic ability, aspiration, and socioeconomic status and these descriptions are useful in terms of examination of motivational factors involved in college attrition. However, not all facets of the phenomenon of attrition can be studied in a single institution or a single investigation. Major emphasis is now placed on the identification of individual factors underlying attrition of students in community and junior colleges in the United States. The rationale for this activity is as follows: Two-year college personnel have begun to realize that student experience in the college environment is a contributing factor to the uniqueness of college as a sociocultural milieu for the development of individual behavior and attitudes. Each student receives a new direction and perhaps a new perspective relative to social and vocational life pursuits through interaction with faculty, administration, and students in a college environment. Therefore, if research pertinent to attrition and retention of students is to have any effect on the organizational response of colleges to expressed and unexpressed student needs, it will have to concentrate on immediate individual and social concerns of students and effectively disregard broader implications of attrition for institutional policy. This is an important concern and should be recognized as a major factor for consideration in institutional treatment of attrition.

Research addressed to the problem of student attrition in the community-junior college has indicated that investigation of motivational factors

involved in attrition is important due to the diversity of student attitudes that may be brought to the college environment. There are many students who maintain little or no intention of completing associate or certificate degree programs at the time of entrance into the comprehensive community college. Therefore, the observation would appear warranted that motivational research on students who fail to graduate from college, should exclude or treat separately students who enter the college environment with educational objectives other than completion of formal degree requirements.

There are a number of factors in addition to motivation which may account for high rates of student attrition in the comprehensive community college. Although attrition rates provide a crude index of the extent of motivational change in students that takes place during college, educators have learned that there are two dimensions to the attrition problem that are not immediately apparent in behavior and attitudes of college students. First, the student is still highly responsive to psychological forces originating outside of the immediate college environment. Second, albeit colleges are principally concerned with instruction and organizational efficiency, students are social beings who react to their environment primarily in terms of previous background experience. In this way, parents occupy a key position in the life of the student--they are primary members of the wide circle of persons who may bring influences to bear on changing values and attitudes of the college student. Clearly, the values, interests, and opinions of community college students

are influenced in important ways by feelings of dependence, ambition, security, and rebellion stemming from expressed opinions of the family toward higher education. Similarily, group and community relationships may become increasingly important to the college student in terms of their impact upon individual motivation toward higher education enrollment. In a number of cases circumstances outside of the college environment force a student to change his goals and plans irrespective of motivation toward college study. Perhaps the most frequent interruptive influences in college study over the past decade have been those of a military service and individual difficulty in financing a higher education. Financial concerns have been identified as an important reason for stopout enrollment patterns among students attending public community colleges. There are other unavoidable, and often unexpected environmental and experiential circumstances that may account for college attrition. Among these are death or serious illness in the family, parents terminating a job or being transferred to another job, and lack of family interest in higher education. Data from attrition research clearly indicate that discontinuation of college study is often a result of multiple factors related to interaction of faculty, administrators, and students in the teaching-learning environment.

The conference reported in these proceedings was designed to accomplish at least four objectives. The first was to provide a basic orientation for two-year college faculty and administrative personnel to what student attrition is, and the types of impact that it has upon the institutional

setting. The second objective was to interpret the vocabulary pertinent to student attrition, identifying new terms as well as those terms which are traditional but appear under a new title. A third objective was to examine the impact of student attrition upon various organizational components of the community-junior college (i.e., academic affairs, student personnel services, general administration, and students). Research on student attrition in higher education most often has been directed toward assessment of achievement and motivational factors involved in termination of study. Few, if any, investigations of attrition have addressed the welter of problems experienced by specific institutional subcultures as a function of their relationship to, and accountability for, student experience in the educational process. The final conference objective was to realistically appraise the current status of student attrition in the community-junior college and to develop an operational model for application of institutional techniques to the problem of attrition. A major conviction shared among all members of the conference planning committee was that conference activity would be impractical unless conference participants could return to their institutions with an operational plan that might elicit further commitment of faculty and administration to the examination of attrition.

The conference was scheduled on May 8-10 in Chevy Chase, Maryland; an activity initiated by Dr. Herbert H. Wood, Executive Director of the GT-70 Consortium. Dr. John Carmichael of Essex Community College, Mrs. Bettye Grimsley of the GT-70 Consortium, and Mrs. Frances Ward of the Metropolitan Junior College District of Kansas City, Missouri accommodated most

of the details in the preparation of these proceedings.

Richard L. Alfred

Kansas City, Missouri

October, 1973

TABLE OF CONTENTS

## ABOUT THE SPEAKERS

Richard L. Alfred, Conference Chairman, received his B.A. degree in Sociology and Psychology from Allegheny College, and his M.Ed. and Ed.D. degrees from The Pennsylvania State University in Higher Education and Sociology. Following assignments as Acting Director of Placement and Financial Aid, Instructor in Sociology, Counselor at Cuyahoga Community College-Western Campus, and Assistant to the Director of University Placement and Financial Aid at The Pennsylvania State University, he received an appointment at the Metropolitan Junior College District of Kansas City, Missouri where he is currently Associate Director of Educational Planning and Research.

Alice J. Thurston was educated at Dennison University and Northwestern University where she received her B.A. and M.A. degrees in Psychology. She received a Ph.D. degree in Psychology from George Washington University in 1959. After assignments in teaching and administration at Central YMCA College, Chicago, Illinois, the University of Maryland, George Washington University, the University of Illinois, and Metropolitan Junior College District of Kansas City, Missouri, she was appointed President of Garland Junior College in Boston, Massachusetts. She is one of the leading figures in community college education in the United States.

Stephen R. Brainard received his B.S. degree from State University College

of New York, Oswego, his M.S. degree from Syracuse University, and his Ph.D. degree from the University of Missouri in the field of Counseling Psychology. After serving as Assistant Dean of Student Affairs and Director of Financial Aid at State University College of New York, Cortland, he received an appointment at the Metropolitan Junior College District of Kansas City, Missouri. He is currently Dean of Student Affairs at Longview Community College.

Edison O. Jackson was educated at Howard University where he received his B.S. and M.A. degrees in the fields of Science and Education. Following service in the Department of Corrections in Washington, D.C.; in Halfway House, in the Bureau of Rehabilitation; in the Legal Aid Agency, and Federal City College, Washington, D.C., he was appointed Dean of Student Affairs at Essex Community College in Newark, New Jersey. He is currently a candidate for the doctoral degree in Education at Rutgers State University.

Herbert H. Wood, Executive Director of the GT-70 Consortium, was formerly Executive Director and President of the Kansas City Regional Council for Higher Education, a consortium of 16 public and private colleges and universities in Kansas City, Missouri. He has served as Assistant Dean of Arts and Sciences at the University of Maine, and as Dean of the College at Albion College in Michigan. As a Michigan Fellow in College Administration, he completed a post doctoral year of study at the University of

Michigan in 1961. A graduate of the American University, he holds a M.A. degree from that institution, and a Ph.D. in Political Science from Columbia University. He is one of the leading figures in consortium administration in the United States.

Frank A. Christensen received his B.S. degree from Morningside College in Psychology, and his M.S. degree from Kansas State Teachers' College, Emporia, Kansas, in Counseling in Higher Education. He is currently a doctoral candidate in higher education administration at Nova University in Canada. After serving as Director of Counseling at Park College, he received an appointment at William Rainey Harper Community College. He is currently Director of the Learning Laboratory at William Rainey Harper.

# INTRODUCTION TO THE PHENOMENON OF STUDENT ATTRITION IN THE COMMUNITY-JUNIOR COLLEGE

by Richard L. Alfred, Associate Director
Educational Planning and Research
Metropolitan Junior College District
Kansas City, Missouri

As a means of introduction to the concept of attrition, let us examine student mortality as both a current phenomenon and a historical phenomenon which has been a major force in two-year college education in the United States for over forty years. One extremely interesting note pertinent to student attrition is that as recent as five years ago, attrition was a consistently investigated phenomenon at a time when enrollments in two-year colleges were increasing rapidly. In that day, major stress was placed on open-door admission of students while relatively little stress was placed on quality control of the educational experience for marginal students. That is to say, many students undoubtedly encounter a revolving-door educational experience which encourages them to terminate higher education enrollment long before completion of institutionally-sanctioned programs of study. College withdrawal is a process that students have found to be just as simple as open-door access to general education curriculum programs in the community-junior college.

Now, the spectrum has changed rather drastically. At present there is significant stress on the revolving-door aspect of two-year college education and this may be due to a number of reasons: 1) diminishing head-count enrollment; 2) diminishing public interest in higher education; and 3) trouble in the area of finance. As can be readily observed, the concept of student attrition presently has taken on a highly political and financial dimension. Its importance to education decision-making personnel has dramatically increased over the last five years, and I suspect very fully, that its importance will increase even more dramatically over the next five years. This conference, then, might be viewed as a somewhat seminal exchange of ideas in the area of student attrition. I would hope that there will be many more conferences of this order in the near future.

Let us take a look at some of the major thrusts of the two-year college and how these have changed over the past five years. Although there certainly are a number of concrete educational objectives observable in the community college (i.e., general education programs, college transfer programs, community service educational programs, occupational education programs, continuing education programs) three general educational thrusts characterize the two-year college movement: 1) occupational mobility, the educational training of students by the two-year college for a highly specific job market; 2) expansion of knowledge, general education for students in a society that demands a relatively high level of education for meaningful citizenship, and 3) social control, two-year

college educational programs and four-year educational programs which by design perform a function of social control through academic preparation of students for social involvement according to existing social norms.

Recently however, all three of these factors have changed tremendously as reflected in dynamically changing two-year college educational programs. Let us review these changes.

Occupational Mobility

Student occupational mobility is highly constricted in a tight labor market unless college curriculum programs are brought to respond immediately to change in occupational market needs. Occupational education programs which typically evolve in response to emerging or existing labor market needs may diminish in significance as market needs decrease. Yet, in the face of decreasing labor market needs, established curriculum programs are budgeted for a rate of enrollment and credit hour program contingent upon earlier, outdated market projections. The result of this process is the tendency of students to withdraw from college when they realize they are enrolled in outdated curriculum programs or "dead" curriculum programs. This phenomenon would appear to be a major sourcepoint of social stress related to the "irrelevance" of higher education in American society.

The labor market is constantly changing. Presently it is not the same wide-open, free-flowing market that it used to be. Extensive planning is necessary for successful implementation of new and existing occupational education programs. The reaction of students to this phenomenon of

of fluctuation in labor market needs may be one that is realized in the following question: Why should I enroll in a two-year college when I can receive short-term occupational training in an apprenticeship program at much less cost? This question has substantial implications for student enrollment in two-year college curriculum programs and is definitely an attrition-related problem in the community college.

Expansion of Knowledge

Based upon attitudinal research, it is a widely known fact that today's student seems to feel that personal experience obtained outside of the college environment is a more valuable teaching mechanism than many types of educational experience within the college environment. As a result, there is often a demonstrated reluctance on the part of high school graduates to enroll in a two-year college following completion of secondary level education. Travel is important, personal friends are important, and social experience is important. In short, there are a number of ways in which to obtain a "personal" education outside of the college environment.

Social Control

The two-year college as an institution of higher education is no longer the guaranteed agency of social control for educationally disadvantaged youth that it once was. Higher education attainment is no longer viewed as necessary for all youth in a society that demands particular skills

for satisfaction of particular social needs. Moreover, there are a number of alternative avenues toward attainment of occupational skills and two-year college occupational programs are but one avenue of many. Other avenues such as trade schools, apprenticeship programs, job-related training programs, and military training programs absorb their share of the post-secondary student market while also serving to socialize youth into the mainstream of social norms in American society. The result of this phenomenon is observed in diminishing or stabilizing enrollment appeal of community colleges to students enrolled in rural, urban, and suburban secondary schools in the United States.

Moving back to a general sketch of the concept to attrition, one can readily see that the phenomenon transcends the personal psychology of the individual. Attrition involves the response of the student to the college environment as a whole, to other students in the college environment, to faculty and administration, and to a score of transactional experiences in college life. In this sense, attrition might be described as a conceptual phenomenon patterned in context with the social theory of symbolic interaction (i.e., attrition from college study is recognized as a behavioral and attitudinal outcome expressed by college students in response to individual, group, and setting elements of their college environment). A model will be presented later in the conference which will explain essential rudiments of this theory to you.

Viewing the attrition phenomenon at this particular stage in the history of the two-year college movement, I am particularly impressed with the

vitality of the phenomenon in diverse college environments. A function of two-year college education in the United States is the mission toward salvage, redirection, and custody of students. I do not believe that we can currently talk about "custody" of students as we did two or three years ago. There no longer is a phenomenon such as the guaranteed annual enrollment increase in the community college. This is due to the fact that students have found numerous alternative modes of obtaining a "personalized education" beyond high school (e.g., travel, business school, apprenticeship programs, etc.). These unique educational modes impinge upon our previous history of continued annual enrollment growth in a way never before experienced by education decision-making personnel.

This observation is important because we no longer have the control over student enrollment that we used to have when business and industry demanded certain educational and occupational skills prior to vocational entry. There are other modes of occupational preparation and this is a phenomena that we will have to cope with over the next five to ten years.

Another very interesting application of the attrition concept is the idea of student persistence in college as an educational value in its own right. In short, the very idea of student persistence in school in a society which places premium demand on finished educational products might well be an end in itself. There are a large number of psychological and sociological constraints that bear on the student who is not a "finished educational product". The assumption is made that if the student has not completed a

higher education program he is basically undesirable to agencies of business, industry, and government. This perspective is gradually changing but still maintains force as a latent value perspective in the mind of a potential employer in business and industry or administrators in an upper-level institution of higher education.

We can look at the two-year college as an input-output model of education--an organizational model which tends to evaluate itself in terms of manifest criteria such as student output and credit hour generation. If a large number of students complete their educational program, the institution is evaluated as efficient. Quite to the contrary, if a large number of students do not complete their educational program, an evaluation of inefficiency or unproductivity is made by sectors of the general public. Two-year college faculty and administration are locked into an accountability system which places premium demand on institutional efficiency as measured by student output. Accountability, in this form, might be defined as the measurable student output of a community or junior college--undoubtedly this is one of the major reasons why you are here today. It is important to examine with a critical eye the student output of your institution. Current institutional interest in the phenomenon of student attrition may be summarized in one simple question: "Is the quality and quantity of student output in a specific community college sufficient to meet the educational demands of business and industry in proximity to the college? The implications of this question for future enrollment trends in two-year colleges in the United States are obvious.

This mode of input-output in the educational system will be one of the major foci of the conference. At this time I firmly believe that there is no greater need for evaluation in higher education today than that related to the investigation of student attrition. There are a number of different forms of student attrition and we will attempt to develop a concrete definition of attrition for you to work with throughout the conference. We will also attempt to direct your attention in this conference to methods of evaluation, assessment, clarification, and educational research pertinent to an educational phenomenon that is not fully understood by faculty and administration in the two-year college. We are going to define what might be called a theoretical foundation (i.e., conceptual framework) for the study of student attrition. It is based upon sociological theory in content but has a very practical application to the problem at hand. We shall establish a theoretical groundwork for examination of student attrition--its determinants and its outcomes. Also, we shall discuss methodological approaches to the study of attrition--what might be called the research side of student attrition. We shall examine research on twenty-two variables related to attrition which were investigated in the Metropolitan Junior College District. Eighteen of these variables were found to significantly differentiate persisting and non-persisting students in one institutional setting. The heart of the conference, will be the practical application of attrition reduction techniques in a specific college environment.

We hope you will begin to address the following questions: Is attrition inevitable? Is it desirable or undesirable? How do we increase institutional commitment to, and understanding of, student attrition?

In establishing a groundwork for the conference, I think it would be wise to carefully define what student attrition is. There are a score of different definitions for this concept. Attrition, to use a dictionary definition, could mean the gradual wearing down of the student through a process of friction. I emphasize the element of personal friction because I believe that a significant degree of the disruption between student and environment that so often accounts for student withdrawal is caused by a manifest disparity between student expectations of the college environment and actual characteristics of the college environment. A more concrete definition of attrition is provided as follows: Student attrition is the separation, in one way or another, of the student from the institutional environment. There are five identifiable ways in which a student can separate himself from the college environment: 1) graduation, the most socially desirable form of attrition; 2) transfer without graduation, a common practice; 3) formal withdrawal, a rarity in some ways; 4) stop-out, a new and relatively uninvestigated educational phenomenon; and 5) informal withdrawal, the most difficult form of attrition to isolate and investigate. The latter form of attrition is most often defined in such terms as "student dropout" or "student mortality". I do not like to use these terms, however, because they are socially symbolistic of personal failure of the unfinished educational

product. The conference will be primarily devoted to the consideration of attrition in terms of the concepts of formal withdrawal, informal withdrawal and educational stop-out. In this sense, attrition might be said to apply to three distinct subcultures of college students.

Moving on to sociocultural origins of institutional concern pertinent to student attrition, it is apparent that there are three major source-points of student attrition in higher education:

1. Institutional functioning as an occupational training center. There is a persistent underlying concept that the comprehensive community college is organized as a training center rather than a general education center. The community college is designed by objective to qualify youth for careers in business and industry, in science and technology, or in paraprofessional occupational fields. In this tradition, when students fail to follow a "normative" track of institutional tenure in the community college, disappointment and hostility are frequently directed at the college. The college, regardless of the quality of its teaching, has failed to accomplish a fundamental tenet of its institutional mission to salvage, redirect, and retain a diverse student aggregate.

2. Increasing size and complexity of two-year colleges in the United States. The comprehensive community college has experienced manifest institutional growth in curriculum programs,

enrollment, facilities, and finance. A function of growth is acquisition of a full-time staff of professional administrators and non-academic personnel. A primary responsibility ascribed to administrative personnel is the coordination of overall institutional operations or what in many colleges is known as "efficiency control." In terms of the premium placed by educational administrators on efficiency and accountability, the extent of student attrition constitutes one measure of the efficiency of an educational institution. This phenomenon is documented throughout the literature relevant to attrition as for both students and colleges, withdrawals are often viewed as representative of a loss of time, energy, and resources.

3. Enrollment and finance loss: A third reason for burgeoning interest in the study of attrition is realized in the truism that financial resources are relinquished from the income side of an institutional budget as students withdraw from the community college. Irrespective of the nature and magnitude of other sources of income, the comprehensive public community college depends heavily on student fees and state appropriations on a per student basis for unrestricted income with which to meet operating expenses. When student attrition is high, the institutional budget, typically under strain, may be unable to balance expenses. As a result, colleges and universities have attempted to identify specific personal factors, patterns of family influence, institutional characteristics, and achievement factors which might

determine withdrawal tendency.

When attention is turned to methodological approaches that might be used to study attrition, three approaches are readily apparent. The first approach is defined as a numerical approach to the study of attrition and is defined as the measurement of students (by number) who withdraw from the institutional setting over a specified period of time. This approach might be termed the "quantitative approach" toward study of student attrition. Data generated in this form is critically important to education decision-making personnel in the development of institutional budget parameters as well as short-range and long-range institutional enrollment planning. There are a number of ways in which quantitative attrition statistics can be tabulated. One way certainly is the calculation of percentage of students lost from the institutional setting as a whole. A second method is tabulation of the number of students lost from individualized courses within the college. A third method is calculation of the percentage of students lost from a division of the college, such as attrition in a specific major field. Attrition can also be examined in terms of stop-in and stop-out educational enrollment patterns. Historically, numerical rates of attrition among institutions of two-year college education range anywhere from 12 to 75 percent, depending on the definition of attrition used. These data are determined on the basis of review of a large body of research literature.

A second approach to study of attrition involves the use of factor analysis techniques and is termed the factor-centered approach. This approach involves isolation and identification of particular variables which might account for attrition tendency among community college students. Variables utilized in this approach include Demographic factors such as family income, parent's occupation, and parent's level of education; Intellective factors such as native ability, high school rank, high school grade point average, and college aptitude; Basic Classification factors such as age, sex, race, enrollment status, veteran status; and Perceptual-Attitudinal factors such as educational degree objective; occupational goals, and reason for pursuing a college education. In turn, these factors may be grouped into two variable sets as follows: (a) self-related factors--distinctive individual factors that the student brings with him to the college setting and (b) college-related factors--factors which bear on the student after he enters the college environment. These variable sets will be the object of extensive consideration in the methodological section of the conference.

A final approach to the study of student attrition is the sub-cultural approach; the study of student attrition based on its institutional impact upon particular subcultures in the college environment. General administration, faculty, student personnel, students, and the general public are institutional subcultures subject to effects of student

attrition. Effects of attrition on these five subcultures will be cited and reciprocal impacts stemming from each relative to student attrition tendency will be discussed.

Finally, each of you will be assigned to a small discussion group and asked to actively develop a model for attrition reduction which can be applied at your institution. We will present several alternative reduction models and one collective reduction model as part of the conference summary.

Are there any questions from the audience?

Q. If students decide they do not want more of the same education they have received in high school and elect to entoll in a nearby technical school, have we, or have we not, served the student?

A. If students desire to attain a college education they will accomplish the objective on terms prescribed by personal motivation and social conditions. The job of the educator is not to peddle a low-quality educational product. Therefore, this question is not a question of professional concern (i.e., how can I keep my job), but rather a question of educational philosophy. Must a student stay in school to become what society feels is a finished product? In what context do you evaluate student attrition as being a positive or negative phenomenon? Schooling and education in American society are not synonymous. When a student does elect to enter into an institutional setting he does so having already made a choice to begin work on particular educational goals. The particular manner in which the college serves and meets the educational goals of the student will determine whether or not the college becomes a viable educational force for the student.

Q. How do we know that attrition among community college students is higher now than was true in the 1940's and 1950's?

A. Perhaps there is no significant difference in attrition tendency among two-year college students now as compared to students in the 1940's and 1950's. One matter is clear, however, and that is that currently employed faculty and administration in the two-year college are more concerned about financial ramifications of student attrition than was true of their college institutional counterparts 30 years ago. Two-year

colleges are not so affluent that they can afford to discard full-time and part-time students. Community and junior colleges must have institutional resources and provide worthwhile educational alternatives to students.

# STUDENT ATTRITION:

# THE INSTITUTIONAL CLIMATE

by Alice J. Thurston
President
Garland Junior College
Boston, Massachusetts

What I am going to do today is give you an "un-speech" which I guarantee you is unstructured, un-suburban or urban, un-modeled, and perhaps, unconclusive. At any rate, perhaps we could all relax for a little while and think through some of the problems and factors related to attrition in a rather broad way. Then I would like to retire with all the grace that I can and listen with great eagerness to hear you people put it all together. I will then write it all down and take it back to my institution.

As I thought about this speech, I felt that it was rather presumptous for me to be here and I hope no one has billed me as the great national expert because this simply is not so. However, I certainly have given it a great deal of thought over a number of years. First, I did want to reinforce the point that attrition is certainly not a new problem. I think it is a new concern. Back in the fifties at Montgomery College, we were studying attrition, trying to look at different categories of students and why they did not return to college. We were able to raise the percentage of those returning from one year to the next from 45 percent to 60 percent and felt

that we had, in fact, accomplished something. A recent study in California indicates 48 percent of students entering one fall come back the next. At my own institution we are very concerned about this phenomenon, just as you are, and find that over the past five years we have had approximately 70 percent of students returning (this is a small, private college. We wondered how our 70 percent compared with other small, private colleges in our area so we began calling deans of instruction and received very secretive responses. There were all kinds of excuses like "What an interesting question," and "we'll call you back." Actually, we have no comparative data from anybody at the private colleges in the Boston area. This result reinforces the point that attrition figures tell something about the institution, and if they are not telling it well enough, people will keep it quiet.

Attrition is something that, over the years, critics have chided us on. We have responded with answers which are basically defensive. The real clincher has been "they don't really understand the community junior college." "They think of it like a four-year college." "If they really understood it, then they wouldn't point so accusingly at our attrition figures." Maybe we have to think about our answer. In the past, administrators typically have been either apathetic, defensive, or both, which is one of those neat administrative tricks that any good president or dean quickly masters. In the early days, I did some attrition studies in several institutions. I tried to show people my data and they said two things: "Oh, I have to go now," or else they said, "Oh, well, of course

you know how junior college students are, they come for all sorts of reasons." This is one way we have handled the whole problem until recently. Now institutions are stabilizing or even dropping in enrollment, thus bringing the problem of attrition into focus.

It does seem that attrition is a very mixed bag. So, I am going to give you three very rough categories for kinds of students who do not persist. I think I would call category number one the move-ons. These students, even though they leave, are perhaps our success story. For example, the student who finds at the college a goal for which he needs particular courses not offered at the institution he is now attending (e.g., insufficient preparation for music or forestry). There is another kind, the despondent student or student who lives at home for a year, gets tired of it, and finally gets the courage to break away. The socially acceptable way to do this is to transfer. Another kind of non-persistor in this category is the pragmatic student or the student who comes for a very specific purpose and completes it. I remember in Cleveland a woman coming in to register for the evening school. She had a schedule of courses all marked. She said that her supervisor had told her that if she took this sequence of three courses in bookkeeping she'd be in line for a promotion. That was precisely all she wanted. Perhaps we have also succeeded with the student who gives it a good try but finally can say, "college is really not for me. Now I can tell my father, mother, Aunt Susy, Uncle Elmer and all the neighbors that it just isn't for me." Being at the college has definitely helped another type of non-persisting

student to grow. Students in this category make up the group of students who decide that they are going to stay out for a while, to get a job, perhaps go into the service, and try to figure out who they are and what they want.

Another second general category of non-persisting students would be the act of God leavers. Here I am thinking about the students who leave because of illness. I am not sure of this one, this can get a little tricky. Some students get sick but they rally, get back to class and continue. Getting sick is a very socially acceptable way out. "I didn't finish the semester because I got sick." Another one in the sick category is pregnancy. Now that it takes a little unplanning to get pregnant, one might wonder about this. Another reason in the act of God category is, "I ran out of money." It has always been a great mystery to me that students walk in, register, and three days later are back in the office saying they can't continue because they have no money. Something which is truly beyond the control of many students may occur when the family moves. If a student attends college in New Jersey and his family moves to California, there may be no practical way for the student to remain in New Jersey.

The third category of non-persisting students, and to me these are our greatest concern, includes the fade-outs. They are the ones who simply go away, and we don't hear about them anymore--the old soldiers of the community-junior college student population. I think our real concern is with these students because I have a funny feeling that maybe they are

the ones we have failed--really failed. To face the fact that we fail any student is difficult. We have been, if not arrogant, at least rather complacent about how well we have done. We have really said as institutions that we know what a college is, we know how students should be taught, how they should be counseled, we know all the procedures and policies and what programs are good for them. If they don't make it--it is because they have failed, not us. What I'm saying is that we may have to accept the fact that to some extent this is our problem if we are truly going to do anything about it.

In California, for example, the greatest number of students who did not persist were minority students. Maybe that tells you something about how well institutions are dealing with minority students. You can obviously turn that one around but we are all too far down the road these days to say that minority students drop out because they don't have as much ability as other students. We can always draw back to the old defenses: minority students simply are not as well prepared, they don't know how to read or write as well, they haven't attended as good schools in the past. So, if they don't succeed, that is their problem, not the colleges' problem.

I think we have to honestly ask ourselves whether our colleges are still geared to serve the kinds of students who have come to us for years; very traditional students? Are we now getting re-tooled, re-geared for the new students entering our colleges in increasing numbers: minority students, older women, veterans, prisoners, and so on? Are our

institutional attitudes, procedures, policies, and methods of instruction still geared to that comfortable old WASP world we are familiar with?

Before we go any further, I couldn't agree more with the planning committee that we have to get the facts. Probably getting the facts is initially the responsibility of the institutional research arm of the colleges. If there isn't an institutional research arm, then this problem is left to the dean of students. I think we have to identify and define the real overall situation and particularly look at what is happening to various subgroups. We discovered an interesting problem in our institution the other day, just to give you a for-instance. We have residence houses. We were looking at the percentage of students who indicated that they would return next fall, by residence house, and found that in several houses almost all the freshmen indicated they were going to return. In one house, however, only one freshman student was going to return. This was the house that had had every problem in the book--it had a fire, a bomb scare, a robbery. In other words, we hit the jackpot in terms of identifying one particular facet of the college contributing to attrition.

Obviously, we must arrive at a common definition of attrition. We have to agree on what we are talking about. Then I would hope that we could parcel out and concentrate on those students whom we are failing. To me the critical group is the fade-away, go-away group, and it may be that some of the stop-outs are of this sort. I think we have to ask

ourselves whether the old problems which we have dealt with for years are involved here and if the times are adding new problems.

Among the old problems are the well-known verbal deficiencies of community-junior college students. "They don't read very well," "they don't write very well." And this is oh, so true. Our whole record in remedial education has been rather dismal. How do we cope better with verbal deficiencies? Is there another alternative--that we teach in less verbal ways? Perhaps there are plenty of occupations in this country where you don't have to read 800 words a minute (not mine, certainly) but I bet there are some. And occupations where you don't have to even spell very well? A good example of this is a very brilliant student I knew who completed his Master's degree, and is now dean of one of the community colleges in the United States. He couldn't spell then, and I'm certain he can't spell now. He writes poorly. But he probably has a great secretary. So, maybe we worry too much about it.

Lack of money, lack of goal--these are also old problems. Now the times are adding some new problems. Certainly one is the expectation gap. What students expect of a college they do not really find. For years we pushed the idea that if you go to college you are going to make more money. For every year in college you will make X amount more money. A four-year degree will enable you to roll in money. I think there are other spooky expectations students have about college; for example,

that it's going to be so different from high school. Maybe we could work more effectively with high school counselors on this. I know I gave my own son some false expectations. I told him that in college he would have to write so many themes and really have to work. He said he understood but, when he got to college, it never happened. His college experience made an absolute liar out of me.

I think there is now a rather widespread disillusionment with college, with the value of going to college. We are going to have to decide what those values really are. If you were going to decide what the real value is in attending your institution, would you place greater emphasis on the degree in terms of its job-finding advantage? I don't see how we can do this.

So, why should anyone go to college? This whole matter previously referred to of moving to the "real world" is something that we should consider for our own institutions--making our colleges real worlds. If we do not do this, we will not survive, because there are too many other appealing sources for education.

I have been thinking about this year-off idea. I suspect that a lot of parents are awfully uneasy at the thought of their son or daughter bumming around for a year or two either right out of high school or after, say, a year of college. How much do they really learn from bumming? Maybe if they are lucky, they learn a lot. In the old days, pre-Vietnam, we used

to advise students who really didn't know what they wanted to study to go into the service. As a result, some came out as confused as when they went in. Others did get something out of it, but it was hit or miss. Sometimes, when I am dreaming, I dream about a first year of college which is lightly but sufficiently structured to help the student achieve some of the things he is looking for in a stop-out, find-himself situation. I think we could do it if we were willing to try to work it out.

Another new problem that I am sure is related to attrition is that of easier access to the four-year colleges and universities. They are saying, almost literally, "you all come." In the old days, as Dick Richardson pointed out in the article in Change magazine, a lot of students came to the community-junior colleges because they felt they couldn't get in anywhere else. Now they can. Recruiters from private colleges are shaking every bush. A number of years ago, the Medsker-Knoell Study indicated that junior college students succeeded better in four-year colleges and universities if they stayed in the community college and graduated. Other studies I have read in the past indicated that the longer the student stayed in the community-junior college, the better he would do. Is this still true? Perhaps we need another national study to see if it is.

What I am trying to say is that if we are going to improve the situation, it will take a lot of institutional commitment. Institutional research can clarify the picture. Then everybody in the college, from the president

on down, will run to the student personnel staff and say, "you do something about it--you know what the situation is--get going, take care of the whole thing." I think that is the easy way out. I don't think that either student personnel or instruction can alone do the kind of job we are visualizing. Rather, institutional change requires top leadership.

Let's suppose that you decide as a result of this conference, you feel total institutional commitment and change will be required. You are going to have to go back and be a very effective catalyst, which is not easy. What happens is that you will go home, somebody will ask how the conference went and, maybe if we are lucky, you will say, "Great," and they will say, "Good, I'd like to hear about it sometime." Where do you go from there?

I think presidents are beginning to understand their crucial role in institutional change. I am just back from a conference on Long Island, sponsored by Columbia University, on the dynamics of change. That is what we are talking about. The dynamics of change, something we could spend a lot of time on, involve long-range planning with general involvement throughout the college--not just the president's planning, not just the board's planning. A group broadly representative of the institution should plan together and then agree on strategies for change.

We must also come back to this change in values which has been referred to periodically in the brief time we have been together. Another thing

that maybe we have going, if we really want to effect change, is adversity knocking on the door. This is a very powerful stimulus. As long as everything is going beautifully, few people want to bother to change. That is not quite the situation now.

I think we all have some hunches about things that will help attrition. Here are a few of mine:

1. Personal attention from someone on the staff.
2. Individualized learning approaches.
3. A total institutional climate which senses students' needs as they arise.

Perhaps if we can deal with these and many others which I am sure will be discussed today, we can begin to solve the problem of attrition.

Are there any questions from the audience?

Q. Putting the attrition concept in a religious realm, why are former believers becoming unbelievers? Why go out and bring the sheep in? How can we argue with the student who feels that his education is irrelevant? Why should we be concerned with attrition tendency among students?

A. If students tell administrators that their education is not relevant, then administrators certainly should listen to them if they want to stay in business. Actually, the non-persisting student is choosing alternatives other than education so as he leaves, our institutions are jeopardized. Since our business is providing education, it should also be our business to provide meaningful education, responding to needs of students, not just our own needs. Students are saying that the college is not giving what they want.

# STUDENT ATTRITION:
# A METHODOLOGICAL PERSPECTIVE

by Richard L. Alfred

The theoretical model which will be utilized as a conceptual framework for student attrition in this conference is drawn from the theory of symbolic interaction. Symbolic interation theory places the accent on attitude and meaning having origin in the relationship between the self and society. Specifically, symbolic interaction theory is concerned with the influence of society and culture upon the individual and the influence of the individual on society and culture.

A sub-theory of symbolic interaction theory with particular utility for the present conference is that of reference group theory. One usage of the reference group concept defines the reference group as a group whose normative prospectives are used as anchoring points in structuring the perceptual world of the individual. Individual perceptions of self and environment are shaped within the context of interaction between the individual and group. Interaction between the individual and group does not take place within a vacuum. Although individual behavior and attitudes are regulated by reference group norms, they are also shaped by internal motivational promptings of the self and by physical and socio-cultural features of the surrounding environment. Thus, in any analysis of individual behavior and attitudes, consideration must be extended to the individual-group-setting relationship within which social psychological phenomena characteristically take form.

Figure I presents a model of symbolic interaction. In this model, major emphasis is placed on antecedent factors involved in central psychological processing activity undertaken by college students

The range of factors presented in this model is classified into three factor groups: a) genetic factors, b) internal factors, and c) external factors. Briefly summarized, essential dynamics of the model of symbolic interaction are interpreted as follows:

> The model approach begins with a conception of the unity of experience and behavior. Although every experience is not immediately translated into action, whatever action is taken is the outcome of central integrating processes which are shaped by diverse genetic, internal, and external factors.
>
> Ordinarily behavior is the consequence of central psychological structuring or patterning; it is the unity of experience and action. Behavioral activity exercised by the individual is not a direct outcome of external stimuli, internal impulses, or genetic inheritance. Behavioral activity follows central psychological patterning of all of these factors within the self. The individual need not be aware of separate contributing items to behavior originating from external stimulating conditions or from inside the self. Functionally inter-related genetic, internal, and external factors operating at a given time constitute the frame of reference for behavior and attitudes formed by the individual. Observed behavior (verbal or non-verbal) can be adequately understood and evaluated when studied in terms of its appropriate frame of reference.

Applying principles of this model to the phenomenon of student attrition in higher education, it is readily apparent that a score of factors may be involved in student withdrawal. These factors are presented in Tables I, II, and III in terms of the three factor groups described above. These factor groups are representative of a complex of factors involved in psychological processing activity undertaken by students. Individual factors in each group may exert varying degrees of influence

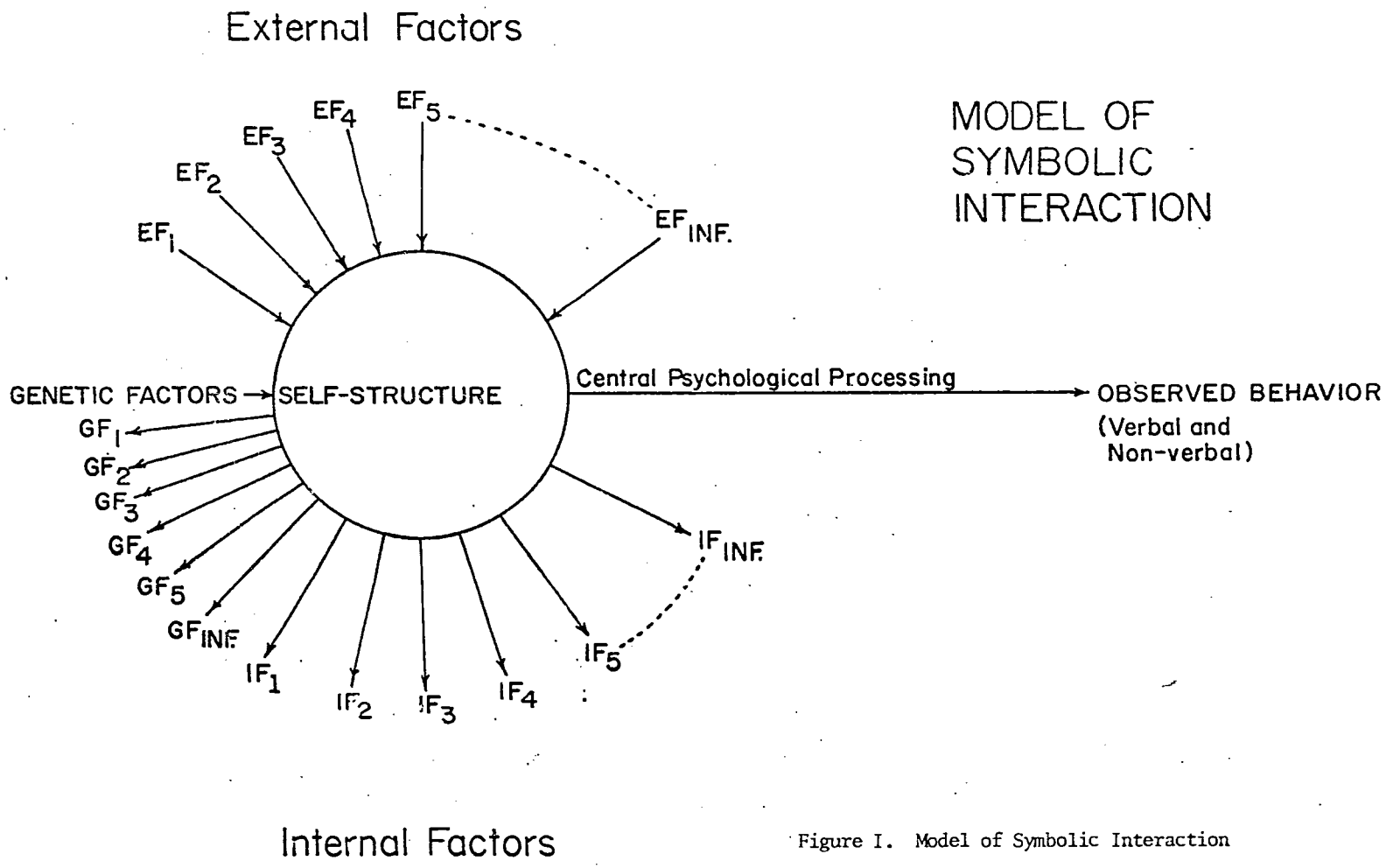



Figure I. Model of Symbolic Interaction

Table I. Genetic Factors Involved in Student Attrition in Higher Education

I. Genetic Factors

a) sex

b) age

c) physical incapacity

d) race

e) selective personality characteristics

1. toleration of ambiguity
2. intelligence
3. interest in reality testing
4. flexibility and non-authoritarianism
5. ability to rebound, to emerge from challenging experiences
6. acceptance of complexity
7. ability to delay gratification
8. energy and creativity
9. ability to tolerate regression when necessary for greater development
10. motivation

f) academic aptitude

Table II. Internal Factors Involved in Student Attrition in Higher Education

II. Internal Factors

a) reason(s) for pursuing a college education

b) attitude toward continuance of college education

c) reason(s) for enrolling in a two-year college

d) nature of involvement with the college environment

e) congruence of student interests and college characteristics

f) perception of faculty characteristics

g) perception of administrative characteristics

h) attitude toward agemates

i) readiness to adapt to the institutional environment

j) degree aspiration

k) career orientation

l) attitude toward marriage

m) level of motivation

n) stability of motivation

o) tangibility of curriculum choice

p) concern over financial status

Table III. External Factors Involved in Student Attrition in Higher Education

III. External Factors

a) occupation of parents

b) family income

c) educational level of parents

d) place of home residence

e) commuting distance from college

f) mode of transportation to college

g) age of parents

h) religious background

i) size of home community

j) financial status

k) work status

l) type of high school environment

m) high school and college activities

n) academic background in secondary school

o) veteran status

p) type of college environment

q) similarity between home and college environments

r) curriculum background in college

s) academic achievement in college

t) attitudes of parents, teachers, and friends toward higher education

u) attitudes of faculty and administration

as factor determinants of student attrition tendency. For example, a combination of factors such as age, toleration of ambiguity, degree aspiration, financial status, commuting distance from college, work status, similarity between home and college environments, and ability to delay gratification may, in one case, be a set of factors which determine withdrawal from college study. Certainly, variable sets of this type may vary from one student to another insofar as individual predisposition toward withdrawal from college is concerned.

In order to evaluate the strength of genetic, internal, and external factors as determinants of attrition tendency among students enrolled in colleges of the Metropolitan Junior College District, the Office of Educational Planning and Research has collected and tabulated annual data pertinent to attrition frequency among specific sub-groups of students. A questionnaire (Student Questionnaire) routinely developed and tabulated for all new and returning students in colleges of the district was administered to the total population of part-time and full-time students enrolled in regional community colleges during fall semester, 1972. Of 9,592 students contacted, 8,486 actually completed the questionnaire (88% response rate). Descriptive statistics were tabulated for the independent variables through application of frequency analysis techniques. All scores with respect to the dependent variable, student attrition, were developed for students classified according to persisting and non-persisting student status. Chi square statistical techniques were utilized to test potential variable relationships. Relationships between 20 of the 23 variables under consideration

Basic Classification, Demographic, and Perceptual - Attitudinal Characteristics of Persisting and Non-Persisting Students in the Metropolitan Junior College District: Spring Semester, 1973

| CHARACTERISTIC | $X^2$ | ENROLLMENT STATUS | | | |
|---|---|---|---|---|---|
| | | PERSISTING N=5630 | | NON-PERSISTING N=2856 | |
| BASIC CLASSIFICATION CHARACTERISTICS | | Number | Percent | Number | Percent |
| Enrollment Status | | | | | |
| Part-time | | 2511 | 59% | 1751 | 41% |
| Full-time | .001 | 2580 | 78% | 745 | 22% |
| Non-response | | 539 | 60% | 360 | 40% |
| Class Attendance | | | | | |
| Day | | 3618 | 74% | 1279 | 26% |
| Evening | | 1792 | 56% | 1425 | 44% |
| Weekend | .001 | 67 | 49% | 71 | 51% |
| Non-response | | 153 | 65% | 81 | 35% |
| Class Level Status | | | | | |
| Freshmen | | 2524 | 67% | 1269 | 33% |
| Sophomore | .001 | 1918 | 71% | 783 | 29% |
| Non-response | | 1188 | 60% | 804 | 40% |
| Sex | | | | | |
| Male | | 3284 | 69% | 1483 | 31% |
| Female | .001 | 2314 | 63% | 1353 | 37% |
| Non-response | | 32 | 62% | 20 | 38% |
| Age | | | | | |
| 16-18 | | 1452 | 74% | 522 | 26% |
| 19-20 | .001 | 1084 | 63% | 642 | 37% |
| 21-22 | | 624 | 60% | 423 | 40% |
| 23-24 | | 582 | 66% | 297 | 34% |
| 25-30 | | 956 | 67% | 463 | 33% |
| 31 and over | | 873 | 65% | 474 | 35% |
| Non-response | | 59 | 63% | 35 | 37% |

| CHACTERISTIC | $X^2$ | ENROLLMENT STATUS | | | |
|---|---|---|---|---|---|
| | | PERSISTING N=5630 | | NON-PERSISTING N=2856 | |
| | | Number | Percent | Number | Percent |
| Race | | | | | |
| Caucasian/White | | 4461 | 66% | 2319 | 34% |
| Negro/Black | | 960 | 69% | 437 | 31% |
| American Indian | .001 | 14 | 74% | 5 | 26% |
| Spanish Surname | | 82 | 66% | 42 | 34% |
| Oriental | | 27 | 54% | 23 | 46% |
| Other | | 33 | 70% | 14 | 30% |
| Non-response | | 53 | 77% | 16 | 23% |
| Veteran Status | | | | | |
| Yes | | 1362 | 74% | 469 | 26% |
| No | .001 | 3792 | 65% | 2043 | 35% |
| Non-response | | 476 | 58% | 344 | 42% |
| DEMOGRAPHIC CHARACTERISTICS | | | | | |
| Father's Occupational Status | | | | | |
| Professional I | | 138 | 68% | 65 | 32% |
| Professional II | | 291 | 67% | 141 | 33% |
| Manager/Executive | | 710 | 68% | 335 | 32% |
| Semi-Professional | | 314 | 70% | 135 | 30% |
| Public Official | | 269 | 70% | 118 | 30% |
| Proprietor | .001 | 425 | 66% | 219 | 34% |
| Sales or Skilled Clerical | | 252 | 65% | 134 | 35% |
| Semi-Skilled Labor | | 1405 | 67% | 699 | 33% |
| Retired | | 478 | 68% | 229 | 32% |
| Unemployed | | 54 | 68% | 26 | 32% |
| Non-response | | 1294 | 63% | 755 | 37% |
| Family Income (Dependent) | | | | | |
| 0 - 2999 | | 103 | 69% | 47 | 31% |
| 3000 - 5999 | | 231 | 75% | 79 | 25% |
| 6000 - 7499 | | 222 | 69% | 98 | 31% |
| 7500 - 8999 | .001 | 263 | 71% | 108 | 29% |
| 9000 - 11999 | | 568 | 74% | 204 | 26% |
| Over 12,000 | | 882 | 69% | 401 | 31% |
| Non-response | | 3361 | 64% | 1919 | 36% |

| CHARACTERISTIC | $X^2$ | ENROLLMENT STATUS | | | |
|---|---|---|---|---|---|
| | | PERSISTING N=5630 | | NON-PERSISTING N=2856 | |
| | | Number | Percent | Number | Percent |
| Self Income (Independent) | | | | | |
| 0 - 2999 | | 788 | 70% | 331 | 30% |
| 3000 - 5999 | | 836 | 57% | 625 | 43% |
| 6000 - 7499 | | 543 | 62% | 334 | 38% |
| 7500 - 8999 | .001 | 426 | 68% | 205 | 32% |
| 9000 - 11999 | | 502 | 66% | 260 | 34% |
| Over 12,000 | | 329 | 63% | 191 | 37% |
| Non-response | | 2206 | 71% | 910 | 29% |
| Educational Level of Father | | | | | |
| Elementary only | | 616 | 67% | 300 | 33% |
| Some high school | | 782 | 67% | 387 | 33% |
| High school graduate | | 1543 | 66% | 800 | 34% |
| Some college | | 876 | 68% | 407 | 32% |
| Associate degree | Insig. | 136 | 74% | 49 | 26% |
| Bachelor's degree | | 304 | 65% | 163 | 35% |
| Master's degree | | 187 | 66% | 96 | 34% |
| Doctorate | | 117 | 69% | 53 | 31% |
| Non-response | | 1069 | 64% | 601 | 36% |
| Educational Level of Mother | | | | | |
| Elementary only | | 386 | 68% | 181 | 32% |
| Some high school | | 767 | 66% | 396 | 34% |
| High school graduate | | 2208 | 66% | 1130 | 34% |
| Some college | | 867 | 70% | 379 | 30% |
| Associate degree | .001 | 167 | 63% | 96 | 37% |
| Bachelor's degree | | 195 | 69% | 87 | 31% |
| Master's degree | | 99 | 69% | 45 | 31% |
| Doctorate | | 25 | 58% | 18 | 42% |
| Non-response | | 916 | 64% | 524 | 36% |
| Place of Residence | | | | | |
| With parents | | 2670 | 70% | 1132 | 30% |
| In own home | | 1673 | 66% | 873 | 34% |
| Room or apartment | .001 | 1087 | 60% | 730 | 40% |
| Other | | 169 | 62% | 102 | 38% |
| Non-response | | 31 | 62% | 19 | 38% |

| CHARACTERISTIC | $X^2$ | ENROLLMENT STATUS | | | |
|---|---|---|---|---|---|
| | | PERSISTING N=5630 | | NON-PERSISTING N=2856 | |
| | | Number | Percent | Number | Percent |
| Financial Status | | | | | |
| Wholly dependent upon parents | .001 | 691 | 76% | 216 | 24% |
| Partially dependent upon parents | | 1565 | 71% | 652 | 29% |
| Independent of parents | | 3056 | 63% | 1811 | 37% |
| Non-response | | 318 | 64% | 177 | 36% |
| Financial Aid Intention | | | | | |
| Yes | .001 | 518 | 76% | 161 | 24% |
| No | | 4911 | 66% | 2569 | 34% |
| Non-response | | 201 | 61% | 126 | 39% |
| Work Status | | | | | |
| 1 - 15 hours per week | .001 | 633 | 74% | 218 | 26% |
| 16 - 24 hours per week | | 946 | 77% | 285 | 23% |
| 25 - 32 hours per week | | 463 | 68% | 213 | 32% |
| 33 - 40 hours per week | | 2340 | 59% | 1613 | 41% |
| Total identifiable working students | | 4382 | 65% | 2329 | 35% |
| Non-response | | 1248 | 70% | 527 | 30% |
| Commuting Distance from College | | | | | |
| 0 - 5 miles | Insig. | 2229 | 65% | 1184 | 35% |
| 6 - 10 miles | | 1959 | 67% | 978 | 33% |
| 11 - 15 miles | | 823 | 69% | 378 | 31% |
| 16 miles and over | | 514 | 66% | 260 | 34% |
| Non-response | | 105 | 65% | 56 | 35% |
| Mode of Transportation | | | | | |
| Car pool | Insig. | 297 | 67% | 144 | 33% |
| Drive own vehicle | | 4689 | 66% | 2413 | 34% |
| Bus | | 343 | 73% | 129 | 27% |
| Other | | 250 | 63% | 145 | 37% |
| Non-response | | 51 | 67% | 25 | 33% |

| CHARACTERISTIC | $X^2$ | ENROLLMENT STATUS | | | |
|---|---|---|---|---|---|
| | | PERSISTING N=5630 | | NON-PERSISTING N=2856 | |
| PERCEPTUAL-ATTITUDINAL CHARACTERISTICS | | Number | Percent | Number | Percent |
| Reason for Pursuing College Education | | | | | |
| Job advancement | | 1370 | 62% | 833 | 38% |
| Broaden education background | | 1020 | 60% | 669 | 40% |
| Acquire technical skills or Associate degree | .001 | 1160 | 71% | 469 | 29% |
| Encouraged by parents | | 65 | 70% | 28 | 30% |
| Prepare for four-year degree | | 1781 | 73% | 673 | 27% |
| Non-response | | 234 | 56% | 184 | 44% |
| Reason for Selecting a Two-Year College | | | | | |
| Low cost | | 2130 | 69% | 943 | 31% |
| Can live at home | | 663 | 70% | 282 | 30% |
| Work in home town | | 737 | 61% | 475 | 39% |
| Want to try college | | 401 | 66% | 208 | 34% |
| Could not get into college of first choice | .001 | 145 | 68% | 68 | 32% |
| Special course or program | | 945 | 66% | 487 | 34% |
| Be with friends | | 11 | 65% | 6 | 35% |
| Other | | 336 | 63% | 200 | 37% |
| Non-response | | 262 | 58% | 187 | 42% |
| Career Plans | | | | | |
| Professional I | | 577 | 67% | 287 | 33% |
| Professional II | | 1623 | 70% | 686 | 30% |
| Manager/Executive | | 959 | 67% | 474 | 33% |
| Semi-Professional | | 1155 | 69% | 512 | 31% |
| Public Official | | 201 | 64% | 111 | 36% |
| Proprietor | .001 | 88 | 55% | 71 | 45% |
| Sales or Skilled Clerical | | 233 | 55% | 187 | 45% |
| Semi-Skilled Labor | | 38 | 56% | 30 | 44% |
| Housewife | | 18 | 39% | 28 | 61% |
| Retired | | 16 | 46% | 19 | 54% |
| Unemployed | | 16 | 64% | 9 | 36% |
| Non-response | | 706 | 61% | 442 | 39% |

| CHARACTERISTIC | $X^2$ | ENROLLMENT STATUS | | | |
|---|---|---|---|---|---|
| | | PERSISTING N=5630 | | NON-PERSISTING N=2856 | |
| | | Number | Percent | Number | Percent |
| Plans to Continue Enrollment | | | | | |
| Yes | | 5338 | 69% | 2370 | 31% |
| No | .001 | 192 | 35% | 349 | 65% |
| Non-response | | 100 | 42% | 137 | 58% |
| Degree Plans | | | | | |
| Associate | | 1674 | 70% | 705 | 30% |
| Bachelor's | | 1870 | 70% | 820 | 30% |
| Master's | .001 | 958 | 72% | 367 | 28% |
| Doctorate | | 257 | 66% | 135 | 34% |
| Other | | 198 | 60% | 134 | 40% |
| None | | 308 | 41% | 445 | 59% |
| Non-response | | 365 | 59% | 250 | 41% |

and student attrition were supported at the .05 level of significance. Data descriptive of these findings are presented in Table IV.

Specifically, it was found that:

1. Enrollment Status: Part-time students exhibit a greater tendency toward attrition from college study than do full-time students. Briefly, 41 percent of part-time students fall into the non-persisting student category whereas the percentage distribution for full-time students is 22 percent. Reasons for this phenomenon might be the following: Part-time students who chose to enroll in a community college often maintain precise, short-term educational objectives. Withdrawal from study for part-time students is a relatively simple process since fewer credits are eliminated at the time of curriculum termination. In this vein, part-time students experience limited contact with the institutional environment and thus develop segmented student-environment relationships.

2. Class Attendance: Attrition tendency among evening students in colleges of the Metropolitan Junior College District is generally higher than that exhibited by day students. Specifically, 44 percent of evening students fall into the non-persisting student category whereas 26 percent of day students fall into this category. Reasons for this trend would appear to be parallel to motivation factors involved in attrition tendency that have been delineated in previous research on full-time and part-time students in higher education. Previous research has indicated that a manifest correlation exists between individual characteristics of part-time students and enrollment status in the evening division of the comprehensive community college. In many institutions part-time and evening student sub-groups are one and the same. If this observation is correct, it would seem clear that attendance patterns of part-time and evening community college students will have similar, if not identical, impacts on tendency toward withdrawal from college study.

3. Class Level Status: Significant differences in attrition tendency are observed among freshmen and sophomore students enrolled in colleges of the Metropolitan Junior College District. Briefly, 33 percent of freshmen students fall into the non-persisting student category. Reasons for this data trend are too numerous to mention. However, a few reasons could be: a) career and educational plans of entering freshmen students are not as highly crystalized as those of sophomore students; b) interpersonal relationships established by freshmen students are not solidified at time of college entry and have limited impact on college persistence plans; and c) expectations that entering freshmen students have of the college environment may be fundamentally at odds with major characteristics of the environment.

4. Sex: Female students exhibit a greater tendency toward attrition from the college environment than is apparent for male students. Approximately 37 percent of female students fall into the non-persisting student category whereas the rate for male students is 31 percent. Exploratory hypotheses pertinent to this finding are abundant in the literature of higher education. However, a major implication of this finding for community college personnel would be the necessity for

meaningful research on social and educational maturity levels of male and female students enrolled in community and junior colleges in the United States.

5. Age: Significant variation in attrition tendency is observed for students in the 16-18, 19-20, and 21-22 year age groups. Specifically, a greater percentage of students in the 19-20 and 21-22 year age groups fall into the non-persisting student category as compared to students in the 16-18 year age group (who exhibit a greater tendency to fall into the persisting student category). As would appear to be the case with the observed differential in attrition tendency among male and female students, lack of social and educational maturity among students in the 19-20 and 21-22 age groups might be a causative factor in attrition among college students.

6. Race: A weak but nonetheless significant relationship is observed between race and student attrition tendency. Contrary to the literature in higher education, black students exhibit a lower tendency to withdraw from study in colleges of the Metropolitan Junior College District than is observed for white students. Briefly, 35 percent of white students fall into the non-persisting student category whereas the percentage distributions for black and Spanish surnamed students in the non-persisting student category are 31 and 39 percent respectively. These data are susceptible to many alternative forms of explanation. However, one date trend is observed: Educational preparation of inter-city black students in the Kansas City metropolitan area might exceed expectations of faculty and administrative personnel in the colleges of the Metropolitan Junior College District. A contrary data trend is in evidence for the Spanish surnamed student population of the district. Findings pertinent to this sub-group appear to indicate that educational preparation of barrio area residents is low in quality when compared to that of white and black student sub-groups in the Metropolitan Junior College District.

7. Veteran Status: A highly significant differential is observed in attrition tendency between veteran and non-veteran students in the Metropolitan Junior College District. The data reveal that 35 percent of non-veteran students are classified into the non-persisting student category whereas only 26 percent of veteran students are grouped into this category. Two factors which may be major causative agents in persistence of veteran students in various institutional environments of the Metropolitan Junior College District are: a) availability of the GI Bill as a financial incentive to college enrollment for veteran students and, b) advanced levels of social and educational maturity among veteran students as compared to non-veteran students.

8. Father's Occupational Status: In this study of attrition in higher education, the relationship between occupational status of the father and student attrition tendency is significant. This finding is congruent with the literature in higher education which indicates that socioeconomic status and educational aspiration are highly correlated variables (Clark, 1959; Trent and Medsker, 1968; Corwin, 1968; and Newcomb and Feldman, 1969). Briefly summarized, the literature indicates that students originating from families characterized by a high socioeconomic background (i.e., families of high occupational status, high income, and high education attainment) are likely to maintain elevated educational aspirations thus reducing the likelihood of institutional withdrawal. A converse relationship is also true: Students originating from families of low socioeconomic background are more likely than students from families of high socioeconomic background to maintain limited educational aspirations and thus are more likely to withdraw from the institutional setting. The finding in this study that a relationship obtains between occupational status of the father and student attrition tendency would appear to indicate that homogeneity among students attending colleges of the Metropolitan Junior College District approximates a level hypothesized by faculty and administration in the District. In short, it is logical that socio-economic background is a major causative factor of student attrition among students enrolled in community colleges of the Metropolitan Junior College District.

9. Family Income: Significant differentials are observed in attrition tendency among students originating from families in the 0 - $2,999, $3,000 - $5,999, and $12,000 and over, annual income brackets. Briefly, students originating from families classified into the $3,000 - $5,999 annual income category are more likely to persist in college than students classified into the 0 - $2,999, $6,000 - $7,499, and $12,000 and over, annual family income categories. It is significant to note that a major differential in attrition tendency is observed for students responding to the family income question with a non-response answer code. Of these students, 36 percent fall into the non-persisting student category -- a rate of attrition substantially higher than that demonstrated by students originating from specified family income categories. This finding would appear to indicate that students who maintain (i.e., by choice or by lack of knowledge) limited understanding of family financial status are more prone to withdraw from college than students who maintain a manifest understanding of family income status. In this sense, knowledge of family income internalized by students might be recognized as one index of social maturity among students enrolled in community and junior colleges.

10. Self Income: The data in Table IV reveals that students in the self income classes $3,000 - $5,999, $6,000 - $7,499, and $12,000 and over, are more heavily represented in the non-persisting student category

than students in the 0 - $2,999, $7,500 - $8,999, and $9,000 - $11,999 self income categories. Several explanations might be offered for this data trend: a) students who maintain a low self income may do so as a result of reduced commitment to full-time work, b) many students generate self income in the form of assistance originating from the institution of enrollment, and c) low income students may maintain greater sensitivity toward "educational success" as a means of escape from their current socio-economic background.

11. Educational Level of Father: The data pertinent to educational level of father reveals that insignificant differentials are apparent between the educational level of fathers for persisting and non-persisting students in the Metropolitan Junior College District. Non-persisting students are more heavily represented in the non-response category of father's level of education and the baccalaureate degree category of father's level of education. However, minimum representation in the non-persisting student category is demonstrated by students from families characterized by fathers with an associate degree level of educational attainment. This finding is not congruent with literature in higher education which advances the hypothesis that a major correlation exists between socio-economic status of the family and educational aspirations of the students. Briefly summarized, the literature reveals that high levels of education attained by parents are correlated with high levels of educational aspiration maintained by students. Data trends pertaining to educational levels of fathers of persisting and non-persisting students in this study would appear to support the hypothesis that socio-economic homogeneity among students attending colleges of the Metropolitan Junior College District is not as great as originally anticipated by faculty and administrative personnel.

12. Educational Level of Mother: A significant differential is observed in attrition tendency among students classified into persisting and non-persisting student categories relative to educational attainment of the mother. Specifically, students who originate from families with a high maternal education background (i.e., families with mothers who have experienced college education) are less likely to withdraw from college study than are other student sub-groups. Students originating from families characterized by an associate degree level of maternal educational attainment or a doctorate level of maternal educational attainment exhibit the greatest tendency toward withdrawal from study in colleges of the Metropolitan Junior College District. These findings would appear to support hypotheses which have been repeatedly articulated in the literature pertinent to the sociology of the family. The maternal figure in the nuclear family of contemporary American society

is the stable linkage between the developing child and society-at-large. In the absence of the father, time spent by the mother with the developing child will inevitably result in significant internalization of maternal social values by the child. This phenomenon would appear to result in the maintenance, by college students (originating from families with a college-level maternal educational background) of a value perspective of persistence in community college educational programs. The relatively high attrition rate demonstrated by students coming from families with a graduate level maternal educational background might only be explained by the fact that women who attain graduate degrees are quite likely to work full-time in a professional field of endeavor and thus not be in a position to influence the child through continuous family interaction.

13. Place of Residence: Students who live with parents during college tenure are more likely to persist in college than students who reside in a private boarding home or apartment. The data in Table IV clearly indicates that 70 percent of students residing with parents fall into the persisting student category whereas 30 percent of this sub-group falls into the non-persisting category. Quite to the contrary, a greater percentage of students (40 percent) residing in a private boarding home or apartment fall into the non-persisting student category. One factor that would appear to underscore this phenomenon is the tendency shown by parents of community college students to maintain rigid performance expectations of students residing at home. Clearly, students residing in a private boarding home or apartment are not subject to this type of familial control and have fewer constraints placed upon their performance in college. This phenomenon has repeatedly been documented in the literature of higher education and would appear to be one explanation for the existence of manifest differentials in attrition tendency among students residing with parents and students residing in a private room or apartment.

14. Financial Status: A significant differential in attrition tendency is observed for students who are wholly or partially dependent upon parents for financial support of higher education as contrasted to students who are independent of parental financial support. The data trend observed in Table IV reveals that a substantial percentage of students (76 percent and 71 percent respectively) who are wholly or partially dependent upon parents are classified into the persisting student category. Quite to the contrary, a smaller percentage of students (63 percent) who are independent of parents are classified into the persisting student category. This finding would appear to indicate that an inverse relationship is in effect between student financial status and attrition tendency. As the degree of personal and financial independence from parents increases during college tenure, persistence tendency in college will decrease proportionately. Once again, the factor of parental expecta-

tions relative to college attendance and academic performance of two-year college students may be a causative factor in reduction of attrition tendency among students who are financially dependent on parents. Increasing financial and personal autonomy of students may result in a simultaneous decrease in student persistence potential.

15. Financial Aid Intention: The data pertinent to financial aid intention of students enrolled in colleges of the Metropolitan Junior College District reveal that a significant relationship is attained between financial aid intention and student attrition tendency. Briefly summarized, students who indicate no intention to apply for institutional financial aid are more likely to withdraw from college (34 percent attrition rate) than are students who indicate a preference for institutional financial aid (24 percent attrition rate). This finding would appear to be closely associated with student response patterns observed in the family income variable in this study. Clearly, students who have knowledge of family finances should also be able to determine whether or not financial aid resources from their institution of enrollment will be necessary for college attendance. Higher rates of non-persistence observed for students who maintain limited knowledge of family financial resources would appear to be correlated with the expressed or unexpressed intention of students to apply for institutional financial aid. The existence or non-existence of financial planning undertaken by students enrolled in college would appear to be a critical determinant of student attrition tendency.

16. Work Status: A major finding in attrition research undertaken in the Metropolitan Junior College District is the phenomenon that students who work 25 hours a week or more are more likely to withdraw from college study than students who work 24 hours a week or less. Specifically, 23 percent and 26 percent of students respectively who work 24 hours a week or less fall into the non-persisting student category. Quite to the contrary, 32 percent and 41 percent respectively of students working 25 hours a week or more are classified into the non-persisting student category. The implications of this finding for faculty and administration in the Metropolitan Junior College District are obvious: higher work loads carried by college students may result in increased potential for student attrition from the college environment. As faculty and administrative awareness of this dimension of student attrition in district colleges begins to increase, it is likely that retention-based curriculum programs will evolve. Nevertheless, the conclusion is justified that student work status is a major determinant of attrition tendency among students enrolled in community and junior colleges in the United States.

17. Commuting Distance from College: Treatment of the variable commuting distance from college reveals a magnificent differential between persisting and non-persisting students in District colleges relative to

one-way travel to campus. This finding would appear to indicate that geographic proximity to college of enrollment is not a causative factor of non-persistence in college. The vast majority of students commuting to District colleges travel within a range of ten miles or less. This variable would appear to have minimal effect upon student attrition tendency.

18. Mode of Transportation: The data in Table IV reveal that the mode of transportation used by students to travel to campus has limited impact upon student attrition tendency. Briefly, students who travel to campus by personal car or car pool are more likely to withdraw from college study than students who travel to campus by bus or some other form of public transportation. Reasons for this data trend are difficult to define; however, one explanation might be the large cluster of students (84 percent) indicating use of a personal car for transportation to college. A logical assumption derived from this finding might be that statistical clustering of students in one response category may distort face validity of data interpretation pertinent to this variable.

19. Reason for Pursuing a College Education: Somewhat akin to the literature in higher education is the finding that a significant differential is observed for persisting and non-persisting students relative to reasons for pursuing a college education. The data in Table IV clearly reveal that students who maintain long-range degree plans (i.e., preparation for a four-year college degree and/or preparation for a two-year associate degree) are less likely to withdraw from college study than students who maintain short-term, pragmatic educational objectives (i.e., job advancement, broadening of educational background, and education to satisfy parental demands). This finding, when correlated with findings in the literature pertinent to educational aspirations of youth, is believed to be a major determinant of student attrition tendency in higher education. Implications of this finding for faculty and administration in district community colleges would appear to fall into the area of evaluation pertinent to college counseling programs. A strong and effective counseling system is needed to bring reality into the career counseling/educational advisement process in regional and national community colleges. Attrition tendency in higher education would appear to be highly correlated with diffuse and uncrystallized educational objectives maintained by students. This problem can be solved through development of a proper mix of directive and eclectic counseling techniques.

20. Reason for Selection of a Two-Year College: A major finding in this study is the differential in attrition tendency among students classified according to specific reasons for attending a two-year college. Briefly, students who choose to enter a two-year college in order to continue part-time or full-time work, for miscellaneous reasons, or for reasons that are not capable of specification, a significant tendency to withdraw from college environment is demonstrated. Quite to the contrary, students who enter a two-year college for pragmatic reasons such as low cost

and residence at home exhibit a lower tendency toward attrition from college study. This data trend would appear to indicate that students who encounter difficulty in specifying goal-based reasons for enrollment in a two-year college or who enter college with uncrystallized educational objectives are more apt to withdraw from college at a point early in their college tenure. A major hypothesis that might be drawn from this observation is that ambiguous and diffuse educational and career plans of students increase the likelihood of withdrawal from college study.

21. Career Plans: The data in Table IV indicate that a significant differential is observed in attrition tendency among students classified according to various levels of career planning. Briefly summarized, students who exhibit a manifest tendency toward non-persistence in college are more apt to maintain career plans that relate to skill areas of propristary labor: sales, or skilled clerical labor; semi-skilled labor; and home management. Quite to the contrary, lower rates of college attrition are observed for students who maintain the following career aspirations: professional I; professional II; managerial/executive; semi-professional; and work in public administration. These data would appear to support findings articulated in previous literature pertinent to career plans of students originating from various socio-economic backgrounds. Findings in the literature indicate that students originating from families of high socio-economic background are likely to maintain career aspirations that are equal to or exceed current occupational status of parents. A converse trend is also true: students who originate from families of low socio-economic background tend to maintain limited career plans and maintain low control over their academic success in college. Implications of these observations for faculty and administration in the community college relate once again to counseling and guidance programs provided by institutional personnel. It would appear that directive-type counseling and guidance programs will have to be instituted in the two-year college if colleges are to experience exemplary success in retaining students.

22. Plans to Continue Enrollment: One of the most significant findings obtained in this study is the finding that variation exists between persisting and non-persisting students with regard to plans to continue enrollment in colleges of the district. Specifically, 69 percent of students who indicate they plan to continue enrollemnt in college fall into the persisting student category. This trend is reversed for students who indicate they do not plan to continue enrollment in college as only 35 percent of this group persist in college. Implications for college personnel derived from this finding are obvious: a significant number of students enter the community college with the idea of planned stop-out from college attendance in mind. Although educational enrollment of students in colleges of the Metropolitan Junior College District is financed on a semester-to-semester basis, many students recognize at the beginning of a semester that they will not return to college

after completion of work during that semester. Additional research on this variable will be necessary if education decision-making personnel are to make accurate judgments with regard to the stop-out phenomenon in higher education.

23. Degree Plans: The last variable in this study, degree plans, elicited a significant differential between persisting and non-persisting students relative to educational objectives they maintained during college tenure. Briefly summarized, students who indicated they planned to obtain an associate degree, a baccalaureate degree, or a master's degree, were more apt to persist in college than students who indicated no degree preference whatsoever or a miscellaneous degree preference. A major implication of this data is that, once again, ambiguity of educational plans appears to be a major causative factor of student attrition in higher education. To the extent that conclusive evidence can be obtained to support a potential relationship between goal ambiguity and student attrition tendency, the hypothesis is lodged that goal ambiguity among regional two-year college students is a major variable determinant of attrition tendency in the Metropolitan Junior College District.

The research findings delineated above can be used to develop a profile of the non-persisting students in the Metropolitan Junior College District. First, however, a few introductory remarks about student profile development would seem to be in order.

Community college students are more representative of the college age population in the United States than are students in any other major segment of higher education. They tend to be almost equally divided between students of above average and lower average ability. The great majority of students come from families which may be classified as moderate or high in terms of socio-economic status. They come predominately from families with average incomes. Contrary to this trend, the population of students from upper income families tend to be more fully represented in public four-year institutions and comprise a decidedly higher proportion of students enrolled in private institutions.

The two-year college, however, does serve two distinct student populations. The first is the seventeen to twenty-one age group loosely described as college-age youth. These students are high school graduates who have gone on to college directly after high school graduation. The second group is comprised of the large number of students who are not of college age. These students represent a large portion of the "unclassified" or "part-time" student populations which take in approximately 50 percent of the total number of two-year college students in the United States. These students range in age from twenty to the sixty and their needs in relation to higher education vary markedly from those of students in younger age categories. Adult students are somewhat more mature than recent high school graduates and their maturity is reflected in the seriousness of purpose with which they pursue educational goals. They view the community college as a stepping stone to realization of long-range personal and vocational goals. Generally, adult students have little or no interest in extra-curricular activities, athletics, and other non-academic activities offered through the college. Their interest is focused upon completion of curriculum requirements necessary for graduation or for achievement of a specific vocational goal.

With this general background of two-year college student characteristics in mind, the following research profile is presented of non-persisting students in the Metropolitan Junior College District. Non-persisting students may be generally described in terms of the following characteristics:

a) they are likely to attend college on a part-time basis as contrasted to full-time basis.

b) they are likely to attend classes on a morning basis as contrasted to an evening basis.

c) they are likely to be classified as freshman level students.

d) they are likely to be of female gender.

e) they are likely to be classified into the 19-20 and 21-22 year age group as contrasted to other age groups.

f) they are likely to be of Spanish surname or oriental ethnic origin.

g) they often have not had experience in military service.

h) they are likely to stem from families characterized by variable levels of family income -- 0 - $2,999, $6,000 - $7,499, and $12,000 and over.

i) they are likely to maintain an annual self income in the range of $3,000 - $5,999, $6,700 - $7,499, and $12,000 and over.

j) they are likely to derive from families marked by a maternal level of educational attainment equivalent to an associate degree or doctoral degree.

k) they are likely to reside in private boarding homes, apartments, or some other form of residence external to their family residence.

l) they are apt to be financially independent of parents.

m) they often do not seek financial support through institutional financial aid programs.

n) they are likely to work 25 hours per week or more.

o) they are apt to maintain as their primary reason for pursuing a college education, job advancement, broadening of educational background, or non-specific reasons.

p) they are likely to maintain ambiguous reasons for selection of a two-year college (e.i., proximity to work, miscellaneous reasons, and non-specific reasons).

q) they are likely to maintain occupational aspirations in the following areas: proprietary labor, sales or skilled clerical labor, semi-skilled labor, and home management.

r) they are likely to plan on discontinuation of college enrollment at the end of a specific academic semester.

s) they are apt to maintain ambiguous or miscellaneous degree plans.

Previous research has given us little conceptual information about persisting and non-persisting student sub-cultures in higher education. We know very little about the adult student who constitutes an extremely important segment of the student population enrolled in institutions of higher education. The data presented in this study have either sampled full-time students enrolled in a day program of college study or part-time student enrolled in an evening program of college study. We need to know much more about the background and motivation of these students. We also need to develop a finer understanding of their problems in beginning college study or resuming higher education, including the conflicting demands of school and society on time and energy of students choosing to enter the contest mobility system of American higher education.

Although the door of the community college is open, it is also frequently a revolving door, and we know little about the motivations and perceptions of students who enter the community college only to terminate study prior to completion of degree requirements. One problem stands out clearly in this review:

we possess only traditional measures to describe the non-persisting student. The non-persisting student often does not fit the tradition of higher education. The ultimate result is that we picture this college student as being less adequate than his peers in accomplishing the tasks of higher education -- tasks which have been developed over the years for a different type of student. It hardly seems likely that we will help each student develop his full potential by offering a single scheme of opportunities, rewards, and requirements. A great task of the future is to investigate whether, and in what ways, non-persisting students in the community college differ in kind, or in pattern of abilities, rather than in degree, from persisting students in higher education.

# STUDENT ATTRITION: A STUDENT VIEWPOINT

The Suburban Community College

by Stephen R. Brainard

When asked to provide my insight about student viewpoints toward the college and student attrition, it occurs to me this is an extra large order since we have as many viewpoints (opinions) as we have students. In thinking of this I am reminded of the theory espoused by a former professor of mine, Dr. Donald Syngg, eminent psychologist who introduced the phenomenological system (The Psychology of Individual Behavior, Syngg & Combs, 1949) to this country. Simply stated, the theory explains that all individuals see reality in a different way according to how they organize their past experiences into a perceptual or phenomenological field. Probably the best way to illustrate is by the method used by the late Dr. Snygg, namely, demonstration. For instance, you all see the tape recorder in front of me. Some of you may see it as a great thing since it will eventually provide you with a transcript of the conference. Others may think, well, they are recording their great thoughts for posterity. Meanwhile, I visualize it as a monster that is devouring every word I say. In essence then, I would have to agree with the message of a recent hit song that it's hard to walk a mile in another person's shoes. Therefore, I can only conclude student views from sources other than myself.

Given some of the constraints inherent in assessing student characteristics and attitudes, it does appear that there are ways of getting at the problem. I'll briefly outline some of the methods I have found to be useful.

1. The Literature on Community College Students. Until recently, the literature related to students in the community college setting was sparse. More has been produced and disseminated in the area of demographic information than in the area of student's attitudes, values, and personality. Recent efforts, however, are promising. Comprehensive studies are reported in the Community College Student (1970) by Koos, Pat Cross' The Junior College Student: A Research Description and The Two-Year College and its Students by The American College Testing Program, Inc.

   In our busy days and months as practitioners in the community college, we often forget to take the time necessary to read some of this important literature, particularly as that literature relates to the students we serve.

2. Information Exchange with Professional Colleagues. If educators who work within the community college (and I include administrators and faculty as part of this group) spend time together, formally and informally, for the sole purpose of talking about their students, the results can be quite beneficial. Those who compile research information on students should share it with others in an understandable form. I will admit this is contrary to the all too often practice of filing it until the next batch of data is ready. Faculty meetings, departmental and interdepartmental conferences, in-service workshops, luncheon get togethers, and hallway conversations can all serve as appropriate forums for learning about our students -- if we allow them to be such. Sometimes we can develop an appreciation of our own institutional uniqueness if we engage in the same types of exchange with peers from other colleges.

3. Talking with Students. To me, there is nothing more refreshing or enlightening as talking directly with the object of of our concern -- the student. I'm not just referring to the few who aspire to leadership roles. I'm sure that it is easy for the Dean of Students or Activities Director to slip into the habit of conversing only with the problem student or the president of the student government. Likewise, other such pitfalls occur when librarians talk only to those who frequent the library, or when business instructors limit their student contact to business students, or when financial aid officers confer only with students experiencing money problems, or when the math faculty select the few bright mathematicians to talk to. The point here is that if we are to develop a full understanding and appreciation of the students we serve, it is imperative that we move beyond our special interests in order to gain a true knowledge of the heterogeneous student body that is with us each day.

4. Systematic In-house Study of Student Characteristics. I have talked about the need to review literature resulting from a national study

> of student characteristics. Although this is important, a necessary complement to this effort must be a strong institutional research thrust which concentrates on the accumulation of information about our own students. In establishing this type of research as a high priority item, you may have to convince the powers to be that the study of student characteristics is as important as the preparation of enrollment status reports, classroom utilization data, unit cost studies, etc. What then are appropriate types of information to collect from our students? It seems to me that any information which sheds some light, but which protects the anonymity of the individual student is fair game. One thing that learning theorists have confirmed is that learning and non-learning are complex phenomena. If we are to develop a thorough understanding of why some students persist and some leave college, it is incumbent on us to decipher the nature of the complex facts involved. Although we at the Metropolitan Junior College District of Kansas City have systematically collected considerable amounts of data regarding demographic and attitudinal characteristics of our students, I still believe our data base can be more comprehensive.

All of the factors which I have alluded to have contributed to my impression of why some students see it necessary to leave the college before completing a program of study. My comments are addressed toward those who leave college as the result of their own lack of clarity of purpose, or for known externally produced or college produced pressures. In this analysis I do not mean to refer to students who leave for sound and well-justified reasons. There is an important distinction here. Many students make well-conceived and rational decisions regarding their departure from our colleges. It is not our mission to proselytize all students to stay. Rather, we should direct our attention to the people who leave for reasons that we can realistically attend to.

Two additional points need amplification in my analysis. First, my observations of the attrition phenomenon are limited to the suburban community college. The students that my experience relates to are those who have attended a suburban community college in a large metropolitan area. Second, there appears to be

distinct differences in reasons for attrition between recent high school graduates and older students. Although the distinctions between the two groups are not totally discreet, they are substantial enough to warrant separate analyses.

In thinking of some of the reasons why recent high school graduates drop out of college after a relatively short exposure, I have to rely on the psychology of late adolescent behavior. Although much has been published in the area, one giant, E. Erikson, stands out. In Identity: Youth and Crisis (1968), the author presents adolescents as persons involved in the critical task of defining themselves relative to parental, cultural and sub-cultural expectations. This task necessarily entails a considerable amount of exploration and reality testing. The trying out of various social roles which result from this exploration, more often than not means an attempt as a college student. Frequently, this role does not fit and the youth leaves the college. Here, then, are some of my impressions of precipitating factors related to the decision to leave:

1. The Dependence-Independence Conflict - Many of our younger students are living a schizophrenic existence. They are very much dependents in that they live at home with their parents under a prescribed (and often quite regulatory) behavior code. Then they travel to the college where an entirely different set of expectations is presented. Thus, the student lives in two environments which are often markedly different from each other. At our college we expect that the student is capable of making mature and independent judgments. I believe that with the majority of students this philosophy works. But there are some who are still torn between the conflict of two distinct behavior codes, one of the home and the other of the college. Often the pressures created by the conflict cause the individual to escape one or both of the environments. This problem is pronounced at the community college since it is typically a commuter college.

2. Career Indecision - The incidence of undecided students at any given community college is greater than some of us would like to believe. How often do we hide our head in the sand by forcing students to declare a program major when they first enter the college. Once our data are tabulated, we proudly say that 60 percent of the students are enrolled in the transfer program and 40 percent are taking coursework in occupational areas. Although I am sure that there is a degree of variance from college and from program to program, I would estimate that 50 percent (and some say this is a conservative figure) of the students enrolled in community colleges have not made firm career decisions.

   I do not believe it is a personal tragedy for an individual to go to college without a specific career goal in mind. In fact, probably some of the wisest career decisions were made over a relatively long exploratory period. We are at fault, however, if we do not attempt the identification of these students or attend to their needs by providing a strong career counseling program.

3. The Immediate Gratification of Needs - The whole syndrome of behaviors which relates to the idea of "let's live for today and to heck with tomorrow" has been commonly perceived as an inner city problem or more broadly a problem associated with people categorized in the lowest socio-economic status. I do not believe that this notion is valid. It is at least my impression that this phenomenon is rampant in the middle income suburbs. Symptoms of this style are most evident among some of the youth attending our colleges and particularly visible with a number of students who drop out early. I'm not advocating that youth should abandon their automobiles, social activities, and hobbies. The development of social skills is important. A problem does arise, however, when conflict develops between short-term and long-term personal priorities. For instance, if a person has a strong desire to become a lawyer but drops out of school to obtain a job that will support his new car, a serious conflict of interest is operating.

4. Weakness in Social Adjustment and Skills of Interpersonal Communication - It is my impression that certain weaknesses in inter-personal communication skills are related to dropping out of college. This viewpoint is supported by some research (Panos & Astin, 1968; Trent and Medsker, 1968; Gough, 1968; Ommen, 1973) that has been conducted.

   It appears as if the two extremes in social activity are not conducive to college persistence. I am sure you have all witnessed the students that bury themselves in activity by joining any project or student organization that they happen to come in contact with. At the other end of the continuum are those that are unable to develop a meaningful relationship with any of their peers, much less with an instructor. In fact, we are frequently unaware that they

dropped out until final grades are prepared. Although I am sure it would be a difficult, if not impossible, task to set acceptable limits of social activity, I do believe that the application of sensitivity by faculty and staff in identifying students at each end of the continuum would go a long way in reducing the number of dropouts attributable to this cause.

5. Poor Self-Concept - Many young students who enter the community college are from the lower third of their high school in regard to educational achievement. Their plight is that of an accumulation of many years in which negative feedback was the regular diet. This type of condition affords one a wonderful opportunity to develop a rather awesome inferiority complex. If this type of student enters the open door college and is allowed to "sink or swim" the results are quite predictable. He or she will be one of our early dropouts.

6. Perception of Family Expectations - There appears to me that a relationship exists between parental expectations and college persistence. In talking with students who are contemplating withdrawal, the discussion often focuses on what the parents think. The response often articulated is, "Well, my parents weren't crazy about my going to college in the first place" or "my dad really doesn't care if I leave school."

   On the other hand, persistence is positively related to strong parental expectations that daughter or son should continue education. This point has been confirmed by research findings. For instance, Trent & Medsker (1968) indicate that 70 percent of the high school seniors who were college persisters reported that their parents definitely wanted them to attend college. Less than 50 percent of the dropouts reported the same expectations.

The attrition phenomenon is not limited to the youth who are recent graduates of high school. The incidence of dropouts is high among older students who have been away from formal education for a considerable length of time. As previously mentioned, I do believe the attitudes and views they express toward leaving college are substantively different from their younger peers. Surely, there must be a degree of overlap when considering certain factors; but for the sake of portraying distinct differences, the following impressions relate to those viewpoints which seem to be unique to older students.

1. The "Being Away from It So Long" Problem - A problem which appears to be pervasive among a large population of older students returning to a formal educational environment, is exaggerated fear of being away from such a situation so long that an adjustment would be extremely difficult. All kinds of concerns are voiced. Complaints are registered about all those sharp young students they are competing against. They often want to take remedial courses in English and math or science. Don't talk to them about taking sophomore level courses. Achievement test scores may indicate a high probability of success but the eivdence is sometimes unconvincing.

   It is easy to pass off these concerns of the adult student as trivial. Doing this, however, can be a costly mistake. No matter how exaggerated the fears may seem, the anxiety is very real to the person involved. Although it is an established fact that the majority of these students perform quite well, some of them do not wait around long enough to find out that they are capable of competing. I am convinced that assertive "reality" counseling should be provided as soon as initial fears are identified. This task requires keen perceptiveness on the part of faculty and counselors.

2. Family Obligations - Many adult students who are endeavoring to pursue a college education, raise a family, and possibly work at the same time, face serious obstacles in relation to personal and family priorities. Although it often requires a painful decision, some must conclude that college is the only item that can be dropped from the family agenda. In this type of situation, intervention is difficult for the college, but I do believe we must make every effort to provide services directed toward adult students who are confronted with certain types of family problems. For instance, how many of us provide child care facilities at our colleges?

3. Marriage Adjustment Problems - Given the national statistics on the divorce rate in the United States, should we continue to stick our heads in the sand by maintaining the problem is of no concern to us. It is a fact that some of our married students are experiencing marital problems. It is a fact that these problems frequently are so intense that continued college attendance is impossible. I'm afraid it also is a fact that our counseling services are too oriented toward the younger student to get involved. The married adult pays the same tuition as the 18 year old freshman and is entitled to benefit from the same services.

4. Dissatisfaction with the Institutional Climate - Although there may be some overlap on this dimension with the younger college student, adult students occasionally register concern about certain aspects of the college environment. Is the climate characterized as a high school with ash trays or does it promote mature and responsible student input into the decision making processes. Do student government people dwell on school mascots and Friday night dances, or do they

represent a broad spectrum of their constituency, including the adult student. Are college rules and regulations consistent with the presumption that students are capable of making mature judgments or are they highly regulatory with a concomitant presumption of student immaturity. It may be wise to put some of these questions to the test of the wisdom of our adult students.

5. Perceived or Real Financial Problems - In talking to many financially independent students who were contemplating withdrawal from college, a frequent response given is that of financial difficulties. In furthering the analysis, it seems to be important that a determination be made whether the need is legitimate and realistic or a reflection of a rather high standard of living. In the former case, it is quite feasible that the student could receive assistance through the financial aids program. The latter case may require that the student examine personal priorities to determine if continued education is important when compared to other financial commitments. In either case, the problem is real to the student and warrants attention by the college staff.

My perceptions of the student viewpoint toward leaving college may appear somewhat categorical and simplistic. I do not wish to convey the message of simplicity. The phenomenon of attrition is, in my estimation, complex and reflects the function of a number of interacting variables, including those mentioned.

STUDENT ATTRITION: A STUDENT VIEWPOINT

The Urban Community College

by Edison O. Jackson

The whole problem of student attrition is one of the major issues facing colleges and especially urban community colleges. Urban colleges must be concerned with many diverse problems because one usually finds at these colleges the most heterogenous population of community college students.

The following concerns seem to contribute to the phenomenon of attrition in the comprehensive community colleges:

1. The atmosphere of college and its policies appear to be dehumanizing to the student.
2. The counseling center deals too strongly with psychological molds for student development or operates strictly within a psycho-medical mold.
3. A low level of faculty receptivity to students.
4. Unmet student needs for study skills.
5. "The run-around-I-don't-know" syndrome.
6. Unmet financial need for students.
7. Faculty expectations -- students feel that teachers are only there for the top 10 percent of the class.

Most urban students need to work or, in some way, have a need to supplement their income while attending college. The college must be certain that it is providing services that meet student needs. Periodic research should be done in order to more accurately assess changing student needs, so that the delivery

system of the two-year college can be adjusted to meet shifts in needs of students and their demographic profile.

We have found at Essex County College in Newark, New Jersey that our attrition rate has been significantly reduced by taking steps to help students in the following areas:

1. Reading
2. Study skills
3. Financial aid
4. Part-time employment
5. Educational and vocational counseling
6. Personal counseling
7. Improved attendance checking policy

Many students tend to express the need for structure in their institution; the lack of experience with many educational alternatives now available leaves them confused as to what should be the best alternative. Specifically, community colleges should provide good guidance services for students. If a series of unfamiliar alternatives is presented to students, the college should take care to provide the appropriate kinds of experiences which will assist the student in decision making activity.

While student attitudes conveniently cannot be measured except through measurement of individual responses to institutional questionnaires, the attitudes of secretaries and clerks non-academic and other staff, such as the switchboard operator, are extremely critical as factors involved in whether or not a student

will persist in an institution.

Finally, if colleges maintain a sincere interest in reducing student attrition, the entire college has to become more attuned to the needs of the students, development of new teaching strategies, and restructuring many of the old attitudes that presently permeate most institutions, whether they be universities or community and junior colleges.

STUDENT ATTRITION: A STUDENT VIEWPOINT

by Mrs. Bessie Thomas

It is a pleasure to appear before you this morning and to respond to the comments of the two Deans of Student Personnel who have preceded me in the conference. I am pleased to be here both as a student in a two-year college in the United States, as well as a student in one particular two-year college -- Washington Technical Institute. As I understand my role in this conference, I am to identify particular problems that I feel students experience in college that might result in their withdrawal from college study. Additionally, I have been asked to place my remarks in context with those developed by the Deans of Student Affairs.

To get right to the point, I believe that there are three major problems facing students in higher education today, which may result in their withdrawal from college study. These problems are:

1. Students experience problems within their families related to attending a two-year college. Some of these problems are caused by parents who do not support student entry into the community college; who believe students should work rather than obtain a college education; and who place rigid expectations on academic achievement of students.

2. Students encounter severe problems in the finance area during college attendance. Many students are not aware of the availibility of institutional financial aid from their college; are not able to budget their finances wisely, even though financial assistance from college may be available; and generally are not aware of alternative funding possibilities they may use to finance a college education.

3. Students experience some difficulty in meeting academic requirements that are spelled out by faculty in the classroom. When a student turns to the person he knows best within the college for help, often

a faculty member, it is because he is experiencing difficulty in the academic area. Instructors should be able to give the type of advice to students which will help them to adjust to college study.

These are concerns that students identify as reasons for attrition among the student body. There is no full picture at Washington Technical Institute as to why some students leave the college environment. A full schedule of counseling services are available to students, faculty are interested in student welfare, and the college curriculum is relevant to student needs. However, a reasonable amount of attrition still occurs among students in the college and I believe this must occur to some degree in all colleges. Are there any questions from the audience?

Q. Is it the obligation of the school to help in family or marital problems?

A. Yes -- students are paying for counseling services when they submit their tuition and fees to the college.

Q. Can you give examples of why students leave college?

A. As I mentioned previously, there is not a full picture of why students leave college without giving notice to institutional officials, faculty, or their friends. I do believe that one possible solution to the problem of attrition, however, would be to provide expanded services in financial aid. More people are needed to process financial aid applications of students attending the college.

Q. I am sorry, but you do not appear to be a typical community college student. One characteristic that I have noticed about many two-year college students is that they have problems. You do not seem to have any problems that would cause you in any way to be classified as a typical student. Did you have any problems at Washington Technical Institute which might have led you to withdraw from college?

A. I have experienced no significant problems during attendance at Washington Technical Institute which might have caused me to withdraw from college. What is your definition of a "typical student"?

STUDENT ATTRITION: THE STUDENT PERSONNEL CLIMATE

Introductory Remarks

by Dr. Alice Thurston

I find great difficulty talking about the student personnel climate as though it were separate from the instructional climate. I think that this is one of the largest problems in our colleges. If we are really going to be the kind of institutions we say we are, and if we are going to make changes, I think that these two groups must get together. What should be discussed are the services that student personnel professionals can give. I evaluate the following as a list of activities that may make effective Deans of Student Personnel:

1. Abandon the separatist state of faculty/student personnel relationships.

2. Do not maintain locked-in traditional student personnel services if there are others that can replace them. Student personnel functions are not supposed to fit definite patterns of student life because of student individuality.

3. Give up ego-tripping.

4. Examine your own attitude toward the persisting student and the non-persisting student.

5. Rid yourself of the idea that "faculty are callous individuals." Learn to work with the faculty.

6. Forget all about those little student clubs. It used to be that if you had a good program, you had at least 25 clubs going -- not so anymore.

7. Spend less time massaging student psyche and more time in helping them with educational career planning -- with the here and now.

8. Keep attuned to reality.
9. Serve as a catalyst for student development throughout the college.
10. Tune in constantly to the needs of particular subgroups of students.

It is very important for a Dean of Students to keep up on things. This can be done from reading, researching, talking with peers, but, most importantly, by dealing with the students, both formally and informally. It is imperative that the dean knows about his students, their background and their needs.

In doing specific research on students who do not return, I found that most students eventually left because of pressures of some sort. The following are types of pressure apparent in non-persisting students.

1. Dependence/Independence Struggle (the recent high school graduate)
2. Career Indecision
3. Need Syndrome
4. Weaknesses in Inter-Personal Communications
5. Poor Self Concepts
6. Perception of Family Expectations
7. Older Students' Problems
8. Financial Burdens
9. Confusion Concerning Goal Expectations

These and other reasons underlying student attrition are factors of major importance to the Dean of Students in a two-year college.

STUDENT ATTRITION: THE STUDENT PERSONNEL CLIMATE

Prediction of Attrition Tendency Among College Students

by Stephen R. Brainard

If we were at the stage of development where we could with predictive accuracy isolate potential non-persisters, the specific personality and behavioral and situational factors, which are causative agents, would be clearly identified and prescribed treatment would be commonplace. Obviously, this level of sophistication has not been realized. Although certain characteristic variables have been related to non-persistence, the potency of these factors in relation to others is unknown. All of the research conducted to date in this area indicates that the phenomenon we are dealing with is complex and involves the interaction of students with peers, family, faculty members, administrative policies and procedures, and the environmental press of the college.

Although the knowledge base is incomplete, we should not despair. Current research is more in tune with the problem and some approximations to accurate prediction are occurring. I don't believe, however, that college personnel should wait for the magical day to arrive before the issue is faced at the local level. We should all embark on a vigorous and systematic effort to develop complete baseline data on student characteristics. As the research that we have conducted in Kansas City demonstrates, there are characteristics which differentiate early non-persisters from non-persisters. It is also known that there is not unamenity across institutions. Therefore, it is necessary that colleges develop local norms for persistence-non-persistence.

At Longview Community College we have been participating in what I believe to be a promising research project. Under the direction of Dr. Jerome Ommen, a predictive inventory, the College Autobiographical Inventory (CABI), has been utilized to identify potential non-persisters, who then participate in small group treatment sessions. What follows is a brief summary of our effort.

Identifying the Non-Persister -- The College Autobiographical Inventory (CABI), developed by Dr. Edward Hammond, Seton Hall University, and Dr. Robert Callis, University of Missouri - Columbia, was designed specifically to identify the student with a high potential for becoming an early (within one academic year) dropout. The basic concepts or techniques of criterion keying were employed in developing the CABI, hence it espouses no theoretical foundation.

Using an optimum cutoff score, one can identify one-half of the students in a typical freshman college group who will drop out prior to the beginning of the second semester at the expense of including in that identified group only ten percent of students who will be persisters. The scores of the other half of the dropouts and 90 percent of the stayins will fall above the cutoff score. For example, if at college 25 percent (250 per 1000) of all entering freshmen normally do not return for their second semester, the CABI would identify a group of 200 students which would include 125 dropouts and 75 stayins, assuming a untreated condition.

It is important to note that while CABI predicts nearly as well among two- as among four-year college populations, different scoring keys, or at least

different sets of norms, must be applied.

While not as perfect as one might wish, CABI predictions improve chance prediction by a factor of at least three. The previously described prediction rate is quite powerful and certainly would enable a college to concentrate its main or special retention efforts on those students who are most likely to become dropouts.

It is important to note that the CABI is an experimental instrument still undergoing revision as new or changed items are added and researched using criterion keying methods. Again, it should be noted that the items included do not reflect any theoretical basis or framework but are only those items which work that predict. Nevertheless, by applying face validity and some factor analysis tests, questions relating to the following general areas seem most important in determining persistence vs. non-persistence tendencies:

1. Family Relationships and Support -- Non-persisters tend to come from family situations typified by strife, particularly between the maturing, independence-seeking college student and one or both of the parents. Also, parental figures tend not to value higher educational achievement, resulting in little moral or financial support of the entering college student.

2. Personal, Psychological, and Financial Commitment to College Attendance -- Possibly derived from parents, these refer to student-held values and commitments. Peer influence in these days when larger numbers of young people opt for no college may also be operative in many cases.

3. Degree Aspirations -- Clear and realistic degree and career aspirations are definite correlates of persistence tendency, while the ambiguous degree and career aspirations contribute to a dropout tendency.

4. Psychological Adjustment -- This is a very broad area referring to general perceptions toward self and self-interpretation of the perceptions of others toward the "self". Generally, a more negative self-concept or a large discrepency between self-perception and perception of others (reality) are associated rather closely with non-persistence.

5. Social Adjustment -- Two extremes in social behavior seem related to non-persistence. Probably for different reasons, the socially overactive student and the isolate are poor college risks.

6. Demographic Data -- Although not highly predictive of persistence/non-persistence, the demographic data items with the inventory can serve as an important means of gathering student characteristic information. Included is such information as previous school academic and non-academic data, socio-economic data, etc.

Obviously, varying degrees of the previously described factors are operative in all students. It seems probable at this time that each factor may have differing potencies depending upon its relationship to some other factor (s). Nevertheless, the CABI does have considerable predictive power and does enable school to identify potential dropouts so that preventive programs can be selectively applied.

Prevention of Attrition -- During the fall 1973 semester, the Student Personnel staff at Longview Community college completed a research treatment project designed to affect short-term attrition rates of entering college students. A short description of the research project follows:

Selection of Subjects: The CABI was administered to all incoming first-time college freshmen and those students with valid scores above a predetermined cutoff score were included in the experimental group. This group, therefore, included those students with the greatest potential for becoming early dropouts.

Experimental Design: The experimental subjects were evenly but randomly divided into two groups, a treatment and a control group. Members of the treatment group were invited to participate in

the treatment, three comparison groups; a treatment group, an invited-but-no-treatment group, and a pure control group, were formed.

Description of Treatment: The treatment groups of 8 to 10 students led by a professionally trained counselor met twice each week during the entire fall 1972 semester. Informality, plus leader behavior designed to promote free interchange of thoughts and feelings, were encouraged. Personal development goals for the student participants and a structured set of discussion topics were provided for and accepted by each group initially. However, it was emphasized to the leaders that alternate discussion topics were quite satisfactory if they seemed relevant.

Results and Findings: The results can be categorized as secondary, or spin-off results and research findings or conclusions, although the former undoubtedly influenced the latter. First, many individual counseling situations developed as a result of the counselor-student contract or rapport which occurred or developed in the group setting. Also, fuller and more lasting relationships developed between leaders and students or students and students as a result of the treatment experience subjective evaluated, by all concerned, as being "very good." Finally, treatment students developed knowledges and skills essential to the art of "schoolmanship." Second, the short-term dropout rate (between registration for fall 1972-1973 and spring 1972-1973 classes at Longview) of the number of the treatment group was approximately 13 percent lower than the dropout rate of either of the other two groups, which the persistence rates of the invited-but-no-treatment and control groups was approximately the same.

While the research contained some weaknesses, it strongly suggests that colleges can significantly affect attrition rates given our current abilities to deal with the questions of "Why persistence?" or "Why non-persistence?"

STUDENT ATTRITION: THE STUDENT PERSONNEL CLIMATE

Follow-up Techniques in Student Attrition

by Stephen R. Brainard

If community colleges do research at all, the tendency is to concentrate data collection on the student at his or her entry. Usually the type of information collected relates to demographic characteristics or achievement assessment. These data are necessary but not sufficient in order to determine the impact of the college on the student.

The measure of the influence which a college has upon the student is critical, if we are in-spirit advocates of a student oriented approach to learning. The one area where some work has been done is in the follow-up of graduates. For instance, the transfer shock phenomenon has been identified among community college graduates who transfer to four-year colleges and universities. Typically, this student experiences adjustment difficulties during the first semester of the transfer, but he generally recovers and survives to complete a program of study. In addition to investigating the success of transfers, many community colleges have followed up on occupational graduates to determine the types of jobs secured and entry salaries. Some have gone as far as obtaining qualitative evaluations of job effectiveness of former occupational students.

It is time to move beyond the follow-up research activities that we have been involved in to date. The graduate population is but a small percentage of the total number that leaves college for one reason or another. Do we know why the student drops out, stops out, or transfers without completing a program of

study? The college has an obligation to respond to the concerns of these students by changing institutional policies and practices, if something is obviously wrong. It seems that we do this when four-year colleges or employers are not happy, but what about the dropout. The answer is that we do not attend to this person's needs until administrators decide the purse strings are beginning to fray.

Longview Community College in coordination with the Metropolitan District Community College Research Office has responded to the need to follow up on all students who leave the college without completing a program of study. During the 1972-1973 academic year, a withdrawal questionnaire was developed and techniques were designed for administration to all students who were enrolled for the fall semester but did not return in the spring.

It was determined that of an initial fall enrollment of 2,949 students, 954 did not return. December graudates were not included in this group. In the spring of 1973, the college wrote to each of these former students and asked that they respond to an enclosed questionnaire. A follow-up mailing was sent to those not responding to the original inquiry. A third attempt to reach non-respondents was made via telephone. The result of our labors was the receipt of 539 completed questionnaires representing a 56.5 percent return of those originally sent letters.

The questions which were asked of the former students included:

1. How many semesters have you attended Longview Community College?

2. What are your immediate plans following withdrawal?

   (1) Attend a four-year college
   (2) Attend another community college
   (3) Attend a technical institute or business school
   (4) Seek employment
   (5) Continue present employment
   (6) No immediate plans
   (7) Other (please specify)

3. If you are withdrawing in order to transfer to another college, please record the name of that college in the space provided below:

4. I evaluate the reasons for which I have chosen to withdraw from college as follows:

   (1) Academic problems
   (2) Class schedule conflict with employment
   (3) Completed course(s) for which I originally enrolled
   (4) Dissatisfaction with college education in general
   (5) Dissatisfaction with counseling or academic advising
   (6) Dissatisfaction with courses or instructors
   (7) Family obligation
   (8) Financial
   (9) Marriage
   (10) Medical
   (11) Military obligation
   (12) Moving from city
   (13) Personal reasons (motivation problems, etc.)
   (14) Other

Results

In response to the question concerning the number of semesters the student had attended the college, 87 percent indicated that they were enrolled for three or less semesters. Of this total of 469, 56.6 percent, or 305 persons, revealed that they had been in attendance for one or less semester. This result alone strongly suggests the need to deal with potential problems early in the students' academic life at the college.

Table I illustrates the immediate plans of those who left.

TABLE I

| | Number of Students | Percentage of Total |
|---|---|---|
| Attend a four-year college | 87 | 16.2 |
| Attend another community college | 15 | 2.7 |
| Attend a technical institute or business college | 20 | 3.7 |
| Seek employment | 49 | 9.1 |
| Continue present employment | 148 | 36.7 |
| No immediate plans | 34 | 6.3 |
| Other | 122 | 22.7 |
| No response | 14 | 2.6 |

Of the total, 22.6 percent indicated that they were transferring without graduation. The largest percentage of these, 71 percent, planned to attend a four-year college. A further analysis revealed that many of these students, 23 percent, left because they or their families were moving out of the area. A substantial percentage, however, stated reasons which may have been within the control of the college. Some of these reasons were: to pursue a B.A. degree program elsewhere (34 percent), took all available courses in interest or program area (20 percent), better range of offerings at the other colleges (5 percent), and to earn "better redit" for transferring (5 percent). Perhaps these findings have implications for improved methods of academic advisement and closer scrutiny of the curriculum offerings for prospective transfer students. Also, it is important that we verify the intended transfer plans by checking for actual enrollment at other colleges.

Another interesting finding was discovered by a content analysis of those who specified "other" as an immediate plan. Of the 122 responses in this category, 108 stated that they intended to enroll again at Longview. This provides strong support for the hypothesis that many students that are classified as dropouts actually intend to stop back in after a short duration.

The withdrawing students identified the most influential factors related to their decision to leave the college. Table II illustrates the reasons for withdrawal and percentage of responses within each category. The people were asked to indicate the three most influential reasons.

TABLE II

FIRST THREE REASONS LISTED BY RESPONDENTS FOR WITHDRAWING

| | Number of Respondents Listing the Reason as | | | Total Number of Responses | Percentage of Responses |
|---|---|---|---|---|---|
| | First Choice | Second Choice | Third Choice | | |
| Academic Problems | 6 | 13 | 21 | 40 | 3.6 |
| Class schedule conflict with employment | 57 | 57 | 40 | 154 | 14.0 |
| Completion of course(s) for which I originally enrolled | 80 | 28 | 17 | 125 | 11.3 |
| Dissatisfaction with college education in general | 22 | 22 | 13 | 57 | 5.2 |
| Dissatisfaction with counseling or academic advising | 6 | 7 | 11 | 24 | 2.2 |
| Dissatisfaction with courses or instructors | 29 | 14 | 15 | 58 | 5.3 |
| Family obligation | 32 | 34 | 36 | 102 | 9.2 |
| Financial problems | 51 | 36 | 27 | 114 | 10.4 |

| | Number of Respondents Listing the Reason as | | | Total Number of Responses | Percentage of Responses |
|---|---|---|---|---|---|
| | First Choice | Second Choice | Third Choice | | |
| Marriage | 25 | 19 | 20 | 64 | 5.8 |
| Medical problems | 16 | 8 | 4 | 28 | 2.5 |
| Military obligation | 36 | 12 | 5 | 53 | 4.8 |
| Moving from city | 31 | 20 | 9 | 60 | 5.4 |
| Personal reasons (motivation problems, etc.) | 34 | 52 | 35 | 121 | 11.0 |
| Other | 69 | 20 | 14 | 103 | 9.3 |
| Total Responses | 494 | 342 | 267 | 1,103 | 100.0 |
| No Response | 45 | 197 | 272 | 514 | n/a |
| TOTAL | 539 | 539 | 539 | 1,617 | n/a |

An analysis of the most influential reasons contributing to the decision to leave the college reveals that 38 percent depart for reasons which may be beyond the control of the school. The reasons indicated here are those such as medical, military obligation, moving from area, marriage, and completed courses originally intended to take.

There were, however, a large percentage of most influential reasons (54 percent) which may have been within the control of the college to deal with. In order of descending frequency, these reasons included (1) class schedule conflict with employment, (2) financial problems, (3) personal reasons, (4) dissatisfaction with courses or instructors, (5) dissatisfaction with college education in general, (6) academic problems, and (7) dissatisfaction with counseling or academic advising. Although it is highly improbable that the college could have reconciled all or even most of these reasons, the results do strongly

suggest that we should be alert to the problems and be prepared to modify programs, policies, and services when deemed necessary.

Conclusions

This study represents a modest beginning of what we hope to be a systematic and more comprehensive effort. Although we followed up the original inquiries two times, the total response was only 56.6 percent of the population.

The bias represented by the non-respondents should be reduced as more conclusive and valid results are made. Also, the data that has been collected should be interfaced with available information on student characteristics (i.e., perhaps we discover that one group of students who dropped out were 19 year old females who had parents with an income of $25,000 and who withdrew for financial reasons). The process of interfacing data would allow the researcher to better pinpoint reasons for a rather complex phenomenon.

Even though our results of this study are somewhat inconclusive, they have provided us with valuable information to make some institutional changes. For instance, we have noted that many students withdrew from college as the result of family obligations. A further check of some of the students involved revealed that a child care center would be instrumental in allowing them to persist. Continued study of this need resulted in the development of a college child care center. Another reason for withdrawal (financial problems) has led us to a rather dramatic expansion of the entire financial aid program.

The findings of the study which I have reported are not as important, at least at this point, as is the concept of follow-up research. Community colleges

must initiate a vigorous and systematic effort of pursuing the reasons why certain students decide to withdraw from college previous to completion of a study program. Until this objective is accomplished, we can only guess at the reasons contributing to the attrition problem.

STUDENT ATTRITION: THE ACADEMIC CLIMATE

Systems for the Retention of Students in College

by Frank A. Christensen

Prior to the development of any model to facilitate a control of student attrition, I would like to reinforce two points that have been identified and touched upon earlier.

The first is a kind of underlying assumption that we need to take a set position on the virtue of attrition, to decide if this is good or bad for the institution. As we examine institutional reactions to student attrition, it is often obvious that this position is polarized; identifiable with one or the other of the two extremes.

The second consideration that I would reinforce is the need to define what attrition is for each individual institution. It may be possible that after a realistic definition has been established, the magnitude of attrition becomes more comfortable.

For example, one community college reported an attrition rate of 70 percent over a three semester span of time. Initially, from an outsiders viewpoint, this would appear to be a gigantic loss rate. However, if we were to carefully examine the individual cases of students who left the institution, we would find such examples as the secretary who enrolled for a shorthand refresher course so she could qualify for a better job; the college graduate who took elementary algebra in preparation for a graduate college examination; the frustrated housewife who wanted only enrichment courses, and the student who

was taking a course with the hope of raising his GPA to enable him readmission to the university.

Those of us that are close to students in the community college know that these are not uncommon examples, yet when they terminate their relationship with the institution, they are inappropriately labeled "dropouts". Immediately they have become a statistic of attrition, irregardless of their original intentions or their rationale for leaving.

It seems to me to be self-defeating for institutions to classify a student as a "dropout" if that student came and completed what he originally intended; even if it were less than a two-year degree or other institutionally defined programs.

Now that these two considerations have been reinforced, let me go on to say that even after scaling down the problem through a more careful classification system, attrition is still a big problem for most community colleges.

Even though colleges have always had dropouts and failouts, only recently have we translated this into a problem area and have started to examine some ways of correcting it. There was a time when universities would consider students only from the top half of their graduating classes. Ivy league schools were priding themselves on the number of applicants they could turn away; college faculty and administrators would dismiss the academic failures under the rationale that they really didn't belong in college. Until just recently, no one was very concerned about student attrition because whenever a student did drop out, two more were in line to take his place.

However, that era of time is no longer with us. Today there is a surplus of vacancies in colleges and universities. The colleges that prospered during the boom of the sixties are now in a financial crisis. Once this phenomena happens, usually the same chain of events takes place. While the students and the money are pouring in, we tend to get fat. When those resources stop or slow down, we desperately look around to see what we can do to maintain the standard of living that we had once enjoyed.

The first thing we try is to attack the admissions office to see what can be done to get more students at a faster rate. The last thing that we do, and often only in desperation, is to develop ways to retain students for longer periods of time.

If we are to establish a model that can facilitate the control of attrition, it would seem necessary for us to re-examine why students leave in the first place. We know some of those reasons -- academic failure, disillusionment, financial problems, emotional problems -- to name a few. Only after the reasons for premature withdrawal have been established can adequate programs of prevention be developed.

It would seem appropriate that, stemming from a total institutional commitment to develop attrition controls, each departmental unit within the institution originate a strategy of identification and prevention. This would extend from the president to the history professor to the dean's secretary to the waitress in the cafeteria. Without such total institutional commitment, most isolated attempts will fall short of what could be accomplished.

Earlier we discussed the development of an expectancy table to predict the likelihood of student attrition. These factors will need to be identified isolated, and treated from the time a student is initially contacted by the admissions office until the president awards his degree.

Counselors will have to be trained and given freedom to take on new roles, often moving out of traditional medical-psychological models into such unconventional concepts as no offices, visiting students at their home or at their job. The financial aids officer will need to take into account the individual's total financial picture and not just the cost of tuition and fees. For a student that has to have a car, for the mother who needs day care for her children, for the veteran who needs payments spread over several months, are financial considerations that have a direct effect on a student staying in or being forced to withdraw from college.

For students who are disillusioned with the traditional classroom and the relevancy of what they are studying, new techniques and non-traditional instruction should be encouraged. Individualized instruction, independent study, and contract learning are just a few that might help the student who doesn't fit the standard system.

Faculty should be encouraged to develop humane policies -- not permissive, but policies that enhance the student's identity and self-worth, as well as his academic development.

More emphasis could be placed on diagnosing of learning needs of the student rather than assuming that all students need the same thing or what the instructor wants.

Increased attention needs to be given to the whole area of academic advising. Whatever the process is, it seldom works as well as it should. At some institutions a team approach to the advising process is being tested. In this system the special skills of counselors, faculty, and peer advisors, are combined to form a valuable resource for the new student.

Perhaps the innovative college will develop new policies and procedures that will assist students moving out of and back in the institution; such things as an academic leave of absence for the student who must interrupt his studies temporarily, a college half-way house for the student with emotional problems that would prohibit college without strong and constant support, independent study for students whose work or life schedule does not match the standard class schedule,and credit by examination for life/learning experiences.

Like many subjects, the more we begin to know about attrition, the more complex it becomes. However, if there is a key to solving the problem, and I think there is, it probably contains these ingredients: 1) an understanding of the complexities of attrition, 2) an early warning system that identifies and leads to treatment, 3) a commitment by the total institution towards the development of systems of attrition control.

# FUTURE RESEARCH ACTIVITY FOCUSED ON THE PHENOMENON OF STUDENT ATTRITION

by: Richard L. Alfred

The prediction of institutional performance continues to be a central issue in educational research. It calls for a variety of measures and a host of approaches, all of which seem to raise more questions than they answer. Differences in population samples, variable definitions, and factor measurement are apparent in most of the research on student attrition. More striking, however, is the great variation in theoretical concepts upon which research designs are structured for the investigation of attrition. Although major emphasis is just beginning to focus on the development of conceptual precepts for educational research, it is interesting to note that there is little, if any, systematic theory for investigation of institutional performance in evaluation of student attrition. As a result, there would appear to be a need for theory-oriented research addressed to the phenomenon of student attrition or at least development of a set of assumptions that can be tested through research. A major focus in attrition research should be the attempt to relate institutional procedure and practice to institutional performance in this area of attrition reduction.

The observation that many of the research findings pertinent to institutional performance in the area of attrition reduction are inconclusive as well as inadequate for translation into institutional policy brings us to the forefront

of a concern that should be addressed in any conference on student attrition: How do educational research personnel evaluate the effectiveness of attrition reduction techniques in use at various institutions? In order to respond to this concern, a major segment of the conference was devoted to research identification and evaluation of attrition techniques currently in use at twenty institutions participating in the conference. This task was accomplished through analysis of data obtained in conjunction with two research objectives:

(1) Identification of specific types of attrition reduction techniques utilized in twenty community-junior colleges in the United States during pre-college, college tenure, and post-college phases of student enrollment in college.

(2) Determination of the frequency with which various attrition reduction techniques are used by participating colleges.

Data pertinent to these research objectives were derived from a research design which had as its central thrust the study of individual behavior and attitudes within specific sociocultural settings, group contexts, and physical settings in which they occur. In order to relate individual behavior and attitudes to the group and physical settings in which they occur, the gamut of influences affecting human behavior and attitudes must be studied at various levels of analysis. Any research design that is to be concerned with the gamut of influences affecting individual behavior and attitudes should by necessity include data collected through procedures and techniques appropriate to one unit of analysis at two levels of analysis. The levels of analysis are defined in terms of apsychological and sociological research classification methodology:

(1) on a phychological level of analysis, the unit of study is the individual and the data are behavioral indicators of his motives, attitudes, expectations, and appraisals, and (2) on a sociological level of analysis, the unit of study is the group and the data are characteristics of the immediate physical and sociocultural setting.

In order to operationalize this type of research design for the attrition conference, a stepwise progression of data collection procedures was utilized. Specifically, each step in this progression was developed in the form of one aspect in a two-part research design. Specifically, these aspects are defined as follows:

Aspect One: Administration of a questionnaire (Attrition Questionnaire) specifically developed for the conference to a sample of twenty educators from a national spectrum of community and junior colleges. The questionnaire utilized a Likert-type scale with measurement values of 1.0 (consistently done) to 5.0 (never done). This scale was designed to obtain information from participants with respect to the frequency of use they ascribed to various administrative techniques designed to reduce attrition tendency among college students.

Aspect Two: Conduction of small group work sessions with conference participants in the period of one afternoon of conference activity. The major orientation of these work sessions was toward identification, articulation, and evaluation of innovative educational techniques which might be used by institutional personnel to reduce attrition tendency among college students.

In research related to the study of individual behavior and attitudes, a persistent problem has been that of the validity and reliability of findings over a

specified period of time. This problem was met in the attrition conference through use of a combination of research techniques to obtain data and through cross-checking of findings obtained through each technique against other techniques. If the results obtained through each technique were consistent, then an operational model was claimed for the classification of attrition reduction techniques in institutions of two-year college education. The method used to accomplish this cross-checking procedure was that of research observation and frequency analysis. Measures were taken of variability in written responses of participants to the Attrition Questionnaire (see Appendix I) as well as measures of their verbal responses in small group sessions. If evidence of simple structuring in written and verbal responses of participants was observed, then support was present for the proposition that a valid and reliable model for classification of attrition reduction techniques could be developed. Quite to the contrary, if there was little or no evidence of simple structuring in responses of participants relative to their evaluation of attrition reduction techniques, then a question would arise as to the generalizability of response data to a classification model. In short, the reliability and validity of a model for classification of attrition reduction techniques could be challenged if responses obtained through various techniques were not congruent.

Data pertinent to Aspect One of the data collection procedure used in development of the attrition reduction model are presented in Table V. The data are presented in the form of median scores on a five-point Likert scale with a rating of 1.0 equaling a polar positive rating and a rating of 5.0 equaling a polar negative rating. The following results are indicated.

Table V. Directionality of Participant Responses to Attrition Reduction Techniques Specified in a Questionnaire

| Question | Responses Frequency (N=25) | | | | | Median Score |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | |
| Pre-Enrollment Activity | | | | | | |
| 1. Review of secondary school attrition | 6 | 2 | 7 | 1 | 4 | 2.7 |
| 2. Secondary school articulation | 8 | 3 | 8 | 1 | 0 | 2.6 |
| 3. Pre-entry counseling | 11 | 7 | 1 | 1 | 0 | 1.5 |
| 4. "College-night" activity | 14 | 1 | 2 | 1 | 2 | 1.5 |
| 5. Pre-entry diagnostic testing | 13 | 0 | 6 | 1 | 0 | 1.5 |
| 6. Diagnostic counseling | 15 | 0 | 4 | 1 | 0 | 1.5 |
| 7. Issue-based small group counseling | 0 | 2 | 1 | 7 | 10 | 4.9 |
| 8. College orientation | 15 | 2 | 1 | 1 | 1 | 1.5 |
| 9. Attrition prediction | 0 | 2 | 5 | 6 | 7 | 4.5 |
| 10. Student characteristics research | 9 | 1 | 2 | 5 | 3 | 2.1 |
| Mean Section Score | - | - | - | - | - | 2.4 |
| Enrollment Activity | | | | | | |
| 11. Provision for periodic counseling services | 12 | 3 | 2 | 2 | 1 | 1.5 |
| 12. Obtainment of student perceptions data | 1 | 6 | 8 | 5 | 0 | 3.4 |
| 13. Faculty involvement in attrition-related counseling | 6 | 5 | 7 | 2 | 0 | 2.8 |

| Questions | Responses Frequency (N=25) | | | | | Median Score |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | |
| 14. Small-group counseling services | 3 | 2 | 6 | 9 | 0 | 3.8 |
| 15. Availability of withdrawal counseling services | 13 | 4 | 1 | 1 | 1 | 1.5 |
| 16. Immediacy of counseling services | 18 | 2 | 0 | 0 | 0 | 1.5 |
| 17. Availability of diagnostic testing services | 11 | 7 | 2 | 0 | 0 | 1.5 |
| Mean Section Score | - | - | - | - | - | 2.3 |
| Post-Enrollment Activity | | | | | | |
| 18. Nature of institutional withdrawal procedure | 12 | 3 | 1 | 2 | 2 | 1.5 |
| 19. Contact between parents, students, and institution | 0 | 1 | 0 | 7 | 12 | 4.9 |
| 20. Research procedures addressed to withdrawal students | 8 | 5 | 3 | 3 | 2 | 2.4 |
| 21. Follow-up activities | 6 | 4 | 6 | 3 | 1 | 2.8 |
| 22. Dissemination of follow-up data | 4 | 4 | 2 | 7 | 3 | 3.8 |
| 23. Publication of follow-up data | 4 | 2 | 4 | 6 | 4 | 3.8 |
| Mean Section Score | - | - | - | - | - | 3.2 |

1. Institutions represented by respondents in the conference consistently utilize routine admissions and recruiting procedures for entering college students. Such procedures as college nights, pre-entry diagnostic testing, occupational interest testing, and institutional orientation programs are offered to entering college students on a regular basis.

2. Respondents in the conference indicate that their institutions have consistently offered (a) periodic counseling sessions to first-year students, (b) have developed administrative procedures for evaluation of student attitudes prior to withdrawal from college, (c) have made provision for immediate personal, social, and academic counseling for students upon request, and (d) have developed a comprehensive battery of diagnostic testing instruments such as vocational interest surveys, personality inventories, and aptitude tests. These findings reveal once again that significant institutional emphasis has been placed upon traditional student service programs for two-year college students during the course of college tenure.

3. Colleges represented by respondents in the conference appear to have established administrative procedures for evaluation of non-persisting students. These procedures, although not universally applied to all students who withdraw from college study, are primarily oriented toward establishment of a data base for follow-up research on non-persisting students.

4. Respondents in the conference reveal that their institutions, for the most part, have collected data pertinent to basic student characteristics. A small number of conference respondents indicate that sporadic evaluation procedures are utilized to review characteristics of entering students. At the same time, few efforts have been made to conduct annual articulation programs with high school counselors and faculty with regard to background characteristics of students. Data of this gender are critical if meaningful analyses of student attrition tendency are to be conducted prior to withdrawal from college study.

5. Respondents participating in the conference indicate that faculty at their institutions have made sporadic attempts to identify high-risk students at time of curriculum entry. Identification of high-risk students and treatment of attrition-related problems should be undertaken by faculty and student development specialists on a semesterly basis.

6. In most cases, colleges represented by participants in the con-

ference appear to have implemented comprehensive student follow-up information systems. The majority of institutions have executed such follow-up techniques as exit interviews, withdrawal questionnaires, follow-up interviews, follow-up telephone inquiries, and follow-up questionnaires. For the most part, these procedures have been implemented before students leave the college environment. Quite to the contrary, institutional follow-up of student withdrawal one year (or more) after withdrawal is marked by sporadic attempts to contact students with regard to reasons for withdrawal from college study. Elapsed time would appear to be a major determinant of institutional failure in the area of follow-up evaluation of non-persisting students.

7. Participants in the conference indicate that their colleges rarely obtain data from students relative to their evaluation and perception of salient features in the college environment.

8. Respondents participating in the conference indicate that their institutions rarely have attempted to develop seminar-type, small group, discussion programs for high-risk students. It would seem critical that small group educational programs be instituted for high-risk students if the rate of attrition among two-year college students is to be curtailed.

9. Conference participants note that sporadic attempts have been made in their institutions to circulate information among faculty and administrative personnel with regard to reasons why students withdraw from college. Published reports pertaining to reasons underlying student attrition should be developed and circulated to institutional personnel on a semester-to-semester basis.

10. Participants in the conference indicate that their institutions have made few attempts to conduct small group seminars with students directed to the idea of examining current issues in American society. This finding is representative of a fundamental lack of two-year college involvement in the treatment of complex social problems in curriculum programs. This program may account for some of the criticism that students have leveled at educational institutions with regard to the irrelevancy of educational processes to current social issues.

11. Respondents in the conference observe that their colleges make attempts to systematically treat problems associated with college attendance to high-risk students. Although changes in the fabric of American society have a stimulated marked transition in student-parent relationships, institutions of higher education still share a major responsibility to foster maximum growth in the student as an individual. Whether this growth occurs most readily in a family

> context, a peer context, or an educational context, it is still a matter for the two-year college to consider. The point here is that the two-year college should not overlook the parents as a major force in student development.

These findings reveal that the performance level of a sample of two-year colleges in the attrition reduction process is reasonably high during the pre-enrollment and enrollment stages of student tenure in college.

The mean section score of 2.4 in the pre-enrollment section of the attrition questionnaire warrants the conclusion that this sample of community and junior colleges did employ a variety of administrative techniques to reduce attrition tendency among college students.

When attention is turned to analysis of attrition reduction techniques utilized by colleges to contact students following withdrawal from college, a significant problem is observed. The mean section score of 3.2 for post-enrollment attrition activity undertaken by participating institutions reveals that colleges in the sample have experienced considerable difficulty in implementing post-enrollment student evaluation programs or, at best, have made guarded attempts to implement such programs. This problem has significant implications for the treatment of student attrition during the pre-enrollment stage of college tenure. Lack of adequate evaluation data prevents institutions from developing innovative administrative techniques for reduction of attrition and also forces them to rely on traditional evaluation techniques. High quality follow-up data obtained from students should lead to the development of retention-based instructional programs and issue-based student activity programs designed to reduce student attrition. Collection of data pertinent to reasons underlying student

withdrawal from college should be a major trust of institutional research activity over the next five years.

One problem that may weaken evaluation procedures used by institutions to investigate student attrition in higher education is that traditional measures have been used to investigate non-traditional students. At present, non-traditional evaluation techniques are needed to evaluate non-traditional students in community and junior colleges in the United States. This problem was the major focus of Aspect Two of the research design utilized to investigate attrition reduction methods in this conference. Aspect Two was designed to identify non-traditional attrition evaluation procedures through verbal assessment of attrition reduction techniques in small group activity. Conference participants were divided into five small groups and were asked to identify and evaluate specific methods that institutions could use to reduce attrition among college students. Their responses are presented in Table VI.

Table VI. Methods of Attrition Reduction Identified in Small Group Activity Undertaken by Conference Participants

Attrition Reduction Techniques:
General Administration

1) Administrative personnel in public and private two-year colleges should translate the phenomenon of student attrition into a college-wide problem; a problem that effects all sub-cultures in the institutional setting.

2) In-service training programs should be implemented which have as their primary objective the development of understanding among non-academic and academic staff with regard to unique problems that high-risk students face in the college environment.

3) Caution should be exercised by education decision-making personnel in the definition of attrition within unique college environments; care should be taken to define attrition in terms of role and scope responsibilities of faculty, students, and administrative sub-cultures in diverse two-year college environments.

4) Faculty and administrative personnel within the two-year college should identify and evaluate positive outcomes of student attrition; such questions as, Is student attrition a negative educational outcome? Should all students remain in college until completion of a degree? Is it best that some students leave college in favor of other avenues toward personal maturation? should be addressed within the rubric of philosophy and objectives of diverse two-year colleges in the United States.

5) Faculty and administration within the two-year college should attempt to vary and streamline traditional admission, registration, and orientation procedures used by college students prior to enrollment in college.

6) Pre-college orientation programs in community and junior colleges should be individualized for special student interest groups (i.e., veteran students, minority students, older students, etc.) in the college environment; collective orientation procedures should be used only for technical elements of college orientation programs.

7) Honesty and forthrightness of purpose should characterize recruiting practices undertaken by administrative personnel in community and

junior colleges; these practices are essential if students are to have realistic expectations of the college environment. In-service educational programs will be necessary for college personnel assigned recruiting responsibilities if community colleges are to reduce attrition tendency among pre-entry students.

8) Pre-college orientation programs administered by two-year college personnel should include greater emphasis on the here and now aspect of student entry into the college environment; pre-entry students should be permitted adequate time to talk to experienced students about such matters as curriculum interests, occupational interests, social adjustment, and academic performance.

9) Expanded commitment must be made by top leadership in the community-junior college to developmental education programs; major emphasis in remedial education is necessary in the disciplines of math and english.

10) Efforts should be made by educational personnel in the two-year college to develop a withdrawal/replacement curriculum for students who drop-in and drop-out of college; this curriculum might be called a "halfway curriculum" and could be utilized by marginal students as a self-paced instructional program. The outcome of the program would be a final decision to withdraw from the college environment or to enter/re-enter the college environment.

11) Alternative approaches to the traditional semester calendar educational program should be developed for high-risk students; one such approach would involve the development of split-semester educational program whereby new students would have the option of beginning study at a mid-point in the academic semester and continue their program of study for reduced credit over the balance of the semester.

12) Faculty and administrative personnel in the two-year college should amend institutional policy to account more easily for changes in major field of study by student; the amended policy should prevent credit loss by students in the process of change of major field.

13) Administrative provision should be made within a wide spectrum of community colleges for student input into college-wide committees in the areas of instruction, governance, student personnel services, and community educational services.

14) Extensive efforts should be made by administrative personnel in community and junior colleges to collect pre-admission data from students with regard to socioeconomic and intellective aspects of their pre-college background.

15) Student characteristics data should be collected by institutional research personnel on a semester-to-semester basis; consideration should be given to longitudinal tabulation of basic classification, demographic, intellective, and perceptual -- attitudinal characteristics of persisting and non-persisting students.

16) Attrition data collected and tabulated within the community college should be reported to faculty, administration, and student personnel subcultures on a periodic basis; data should be tabulated according to particular categories of non-persisting student status.

17) A highly trained staff should be available to students who enroll in community and junior colleges on last-minute basis; many of these students are classified as high-risk students and efforts should be made to accelerate their adjustment to the college environment through specially tailored counseling programs.

Attrition Reduction Techniques:
Faculty

1) More extensive efforts should be undertaken by community college faculty to dovetail college curriculum programs with curriculum programs in area secondary schools.

2) Provision should be made within community and junior colleges for faculty to participate in summer advisory programs for pre-entry students.

3) Careful consideration should be given to the concept of faculty released time for research on causative factors underlying student attrition; the major trust of faculty oriented research on student attrition should be indentification of instructional techniques that will substantially reduce attrition tendency among college students.

4) Efforts should be made by administrative personnel in the community college to foster team-oriented working relationships among faculty, counselors, and learning resources staff; a major focus of the team-oriented model should be retention of students in the college environment.

5) Assignment should be made of developmental education specialists to specific academic departments in the community-junior college.

6) Expanded efforts should be undertaken by educational personnel in the community college to develop individualized instructional methods suitable for implementation within a wide range of academic disciplines.

7) A system of contract teaching with flexible time limits for student completion of curriculum requirements should be developed and implemented within a wide spectrum of two-year colleges.

8) Instructional programs in community and junior colleges should maintain as an essential objective retention of students in the college environment; greater attention should be given to small group, seminar-type instructional methods.

9) Administrative consideration should be extended to non-punitive grading systems in the community college; grade systems should place greater emphasis on student growth in the learning process as contrasted to student raw ability at time of entry into curriculum programs.

10) In-service educational programs should be developed within the community college that will serve to instill a positive attitude toward student persistence in college among faculty, administration, and non-academic staff.

11) Greater attention should be given by faculty and administration in the community college to identification of students with high-risk potential; faculty are located in proximity to students in the college environment and encounter numerous opportunities for identification and referral of high-risk students to counseling specialists.

12) Major efforts should be undertaken by institutional research personnel in the community college to tabulate and disseminate student attrition data to faculty on a semester-to-semester basis; data should be tabulated in such form as to summarize attrition findings according to form of attrition (i.e., informal withdrawal, stop-out, and formal withdrawal) and level of attrition (course withdrawal, program withdrawal, and institutional withdrawal).

13) Major innovations should be effected in humanities and social sciences curricula in the two-year college; these curricula could encompass a laboratory approach to student development with student attrition tendency, a special outcome of student educational experience, the subject of laboratory work in the college environment.

Attrition Reduction Techniques:
Student Personnel

1) Greater attention should be given by student development specialists to implementation of group counseling techniques for students who encounter problems in the areas of personal development, academic motivation, social interaction, and vocational outlook; the security

in number afforded by the small group counseling permits students greater freedom of expression in the counseling environment.

2) Structured interview sessions should be undertaken by student development specialists with new and returning students; the objective of these interviews would be to identify high-risk student characteristics that require treatment in counseling and advising programs in the community college.

3) Efforts should be made by student development specialists in the community and junior college to match student need profiles with profile characteristics of various faculty in college academic disciplines.

4) Careful consideration should be given by student development specialists to utilization of student peer counselors in counseling and advisement programs for entering students; student peer counselors are able to directly and effectively communicate institutional value systems to entering students.

5) Extensive efforts should be made by student development specialists in the community college to evaluate specific types of counseling programs for productivity with regard to retention of students in college; effective counseling programs maintain evaluation criteria that are founded to some degree on stabilization of student motivation toward success in college.

6) Student development specialists in the community and junior college should undertake stronger efforts to provide study skills assistance to educationally disadvantaged college students; assistance of this type should be directly relevant to contemporary student needs and should be refined through research analysis of student aptitudes and abilities.

7) Greater attention should be given by student development specialists to alternative reward systems for students enrolled in college parallel and developmental education curriculum programs; reward systems such as exemption of selected general education requirements might be implemented for remedial students, whereas college parallel students might be assigned responsibility for guidance and advisement of students in remedial programs as a reward for successful academic performance.

8) Consideration should be given to the use of research instruments for prediction of attrition tendency among college students; research identification of high-risk students in the college environment is critical if student development specialists in the community college

are to initiate retention-based academic programs and student activity programs.

9) Extensive efforts should be made by student development specialists to collect data from students pertaining to changes in their value systems during college tenure; data of this type will serve to acquaint institutional personnel with realistic information concerning the disposition of student need systems.

10) Efforts should be made to collect extensive follow-up data on students terminating study in the community college; data should be collected that can be applied to existing systems, as well as to specific planning strategies for implementation of program design.

The data in Tables V and VI clearly reveal that conference participants indicate common methodologies for reduction of attrition in both the questionnaire phase and small group phase of conference activity. Major emphasis is placed on such concerns as availability of diverse counseling programs for the two-year college student, implementation of individulized college orientation programs in the college setting, expansion of articulation programs between community colleges and secondary schools, expansion of diagnostic testing services, institutional provision for expanded research programs pertinent to description and tabulation of student characteristics data, implementation of institutional research activity in the area of attrition prediction among college students, and institutional provision for follow-up research on students who withdraw from college study. Evidence of simple structuring in participant responses to alternative research procedures in the conference indicates that a general model for institutional activity in attrition reduction can be developed as a result of the conference. The general model is presented in Table VII. The model is generalizable to a wide spectrum of community and junior colleges in the United States.

Table VII. General Model for Attrition Reduction Activity in Community and Junior Colleges

| Sequence of Activity | Activity | Accountability |
|---|---|---|
| Pre-Enrollment Activity | 1. Review of secondary school activities. | Student Personnel |
| | 2. Variation and streamlining of traditional admission, registration, and orientation procedures in the community-junior college. | General Administration |
| | 3. Pre-entry counseling. | Student Personnel |
| | 4. Individualization of pre-college orientation programs in community and junior colleges according to needs of special student interest groups (i.e., veteran students, minority students, older students, etc.) in the college environment. | General Administration |
| | 5. "College-night" activity. | Student Personnel |
| | 6. Direct communication of college characteristics by college personnel to prospective students; these practices are essential if students are to have realistic expectations of the college environment. | General Administration |
| | 7. Pre-entry diagnostic testing. | Student Personnel |
| | 8. Greater emphasis on the here and now aspect of student entry into the college environment; pre-entry students should be permitted adequate time to talk to experienced students about such matters as curriculum interests, occupational interests, social adjustment, and academic performance. | General Administration |

| Sequence of Activity | Activity | Accountability |
|---|---|---|
| | 9. Development of a withdrawal/replacement curriculum for students who drop in and drop out of college; this curriculum might be called a "half-way curriculum" and could be utilized by marginal students as a self-paced instructional program. | General Administration |
| | 10. Collection and tabulation of pre-admission data from students with regard to socioeconomic and intellective aspects of their pre-college background. | General Administration |
| | 11. Availability of a highly trained staff to students who enroll in community and junior colleges on last minute basis. | General Administration |
| | 12. Articulation of college curriculum programs with curriculum programs in area secondary schools. | Faculty |
| | 13. Faculty participation in summer advisory programs for pre-entry students. | Faculty |
| | 14. Structured interview sessions are undertaken by student development specialists with new and returning students; the objective of these interviews is to identify high-risk students who require treatment in special counseling and advising programs in the community college. | Student Personnel |
| | 15. Efforts are made by student development specialists to match student need profiles with profile characteristics of various faculty in | Student Personnel |

| Sequence of Activity | Activity | Accountability |
|---|---|---|
| | college academic disciplines. | |
| | 16. Consideration is given by student development specialists to utilization of student peer counselors in counseling and advisement programs for entering students. | Student Personnel |
| | 17. Consideration is given to the use of research instruments for prediction of attrition tendency among college students. | Student Personnel |
| | 18. Student characteristics research. | General Administration |
| Enrollment Activity | 1. Faculty involvement in attrition-related counseling. | Faculty |
| | 2. Expanded commitment in the community-junior college to developmental education programs. | General Administration |
| | 3. Availability of withdrawal counseling services. | Student Personnel |
| | 4. Implementation of alternative approaches to the traditional semester calendar educational program; one such approach would involve the development of split-semester educational program whereby high-risk students would have the option of beginning study at non-traditional points in the academic semester. | General Administration |
| | 5. Immediacy of counseling services. | Student Personnel |
| | 6. Revision of institutional policy to account more easily for student changes in major field of study; the | General Administration |

| Sequence of Activity | Activity | Accountability |
|---|---|---|
| | surmended policy should prevent credit loss by students in the process of change of major field. | |
| | 7. Availability of diagnostic testing services. | Student Personnel |
| | 8. Provision for student input into college-wide committees in the areas of instruction, governance, student personnel services, and community educational services. | General Administration |
| | 9. Collection of student characteristics data on a semester-to-semester basis; consideration should be given to longitudinal tabulation of basic classification, demographic, intellective, and perceptual attitudinal characteristics of persisting and non-persisting college students. | General Administration |
| | 10. Faculty released time for research on causative factors underlying student attrition; the major thrust of faculty-originated research on student attrition should be identification of instructional techniques that will substantially reduce attrition tendency among college students. | Faculty |
| | 11. Development of team-oriented working relationships among faculty, counselors, and learning resources staff; a major focus of the team-oriented model should be on retention of students in the college environment. | Faculty |

| Sequence of Activity | Activity | Accountability |
|---|---|---|
| | 12. Assignment of developmental education specialists to specific academic departments in the community-junior college. | Faculty |
| | 13. Expanded efforts are made to develop individualized instructional methods suitable for implementation within a wide range of academic disciplines. | Faculty |
| | 14. Contract teaching with flexible time limits for student completion of curriculum requirements. | Faculty |
| | 15. Instructional objectives which are guaged to retention of students in the college environment; greater attention to small group seminar-type instructional methods. | Faculty |
| | 16. Consideration is given to non-punitive grading systems in the community college. | Faculty |
| | 17. In-service educational programs are designed to instill a positive attitude toward student persistence in college among faculty, administration, and non-academic staff. | Faculty |
| | 18. Attention is given to identification of students with high risk potential; faculty are located in proximity to students in the college environment and encounter numerous opportunities for identification and referral of high risk students to counseling specialists. | Faculty |

| Sequence of Activity | Activity | Accountability |
|---|---|---|
| | 19. Development of humanities and social sciences curricula in the two-year college which encompass a laboratory approach to student development; student attrition tendency, a special outcome of student educational experience, is the subject of laboratory work in the college environment. | Faculty |
| | 20. Attention of student development specialists is given to implementation of group counseling programs for students who encounter problems in the areas of personal development, academic motivation, social interaction, and vocational outlook. | Student Personnel |
| | 21. Structured interview sessions are undertaken by student development specialists with new and returning students; the objective of these interviews is to identify high risk students who require treatment in special counseling and advising programs in the community college. | Student Personnel |
| | 22. Efforts are made by student development specialists to match student need profiles with profile characteristics of various faculty in college academic disciplines. | Student Personnel |
| | 23. Efforts are made by student development specialists to evaluate specific types of counseling programs for productivity with regard | Student Personnel |

| Sequence of Activity | Activity | Accountability |
|---|---|---|
| | to retention of students in college. | |
| | 24: Student development specialists provide study skills assistance to educationally disadvantaged students; assistance of this type is directly relevant to contemporary student needs and is refined through research analysis of student aptitudes and abilities. | Student Personnel |
| | 25. Attention is given to alternative reward systems for students enrolled in college parallel and developmental education curriculum programs. | Student Personnel |
| | 26. Efforts are made to collect data from students pertaining to changes in their value systems during college tenure. | Student Personnel |
| | 27. Translation of the phenomenon of student attrition into a college-wide problem. | General Administration |
| | 28. Development of in-service training programs with a primary objective of fostering sensitivity among non-academic and academic staff with regard to unique problems that high-risk students face in the college environment. | General Administration |
| | 29. Definition of attrition in terms of role and scope responsibilities of faculty, student, and administrative subcultures in diverse two-year college environments. | General Administration |

| Sequence of Activity | Activity | Accountability |
|---|---|---|
| Post-Enrollment Activity | 1. Nature of institutional withdrawal procedure. | Student Personnel |
| | 2. Development of a withdrawal/replacement curriculum for students who drop in or drop out of college; this curriculum might be called a "halfway curriculum" and could be utilized by marginal students as a self-paced instructional program. | General Administration |
| | 3. Contact between parents, students, and institution. | General Administration |
| | 4. Collection, tabulation, and dissemination of attrition data to faculty, administration, and student personnel subcultures on a periodic basis; data should be tabulated according to particular categories of non-persisting student status. | General Administration |
| | 5. Dissemination of follow-up data. | General Administration |
| | 6. Efforts are made to collect extensive follow-up data on students terminating study in the community college. | Student Personnel |
| | 7. Publication of follow-up data. | General Administration |

Evaluation of findings obtained through a variety of research techniques addressed to a common problem is never an easy task. Model development by definition means the combination of unstructured educational concepts into a systematic whole. Development of an attrition reduction model is limited to the diverse institutional outlooks of individual administrative and faculty subcultures in one college setting. Faculty and administrators are accountable to different publics in higher education and society, they have different expectations of the educational process, and they maintain diverse professional outlooks in relation to mobility in the college environment. Divergence between faculty and administrative value perspectives adds to the richness of the attrition reduction model. It also poses a hazard for model development: Does the researcher emphasize elements of concensus among college personnel or accentuate diversity among college personnel? This problem was resolved through generalization of research findings in the attrition reduction to a common set of institutional procedures. These procedures are summarized in a general model for institutional activity in attrition reduction as presented in Table VII.

The attrition reduction techniques described in Table VII are necessarily influenced by educational outlooks, professional objectives, and performance expectations of faculty and administrative personnel in a national sample of two-year community and junior colleges. These data are unique because previous research offers little information about innovative institutional practices and techniques that might be utilized to reduce attrition tendency among college students. We know very little about the success of various attrition reduction techniques that are administered to specific subgroups of students in the college

environment. We need to know more about the background and motivation of various subgroups of students and the probable effect a wide range of attrition reduction techniques applied to specific subgroups.

A survey of this magnitude cannot shed light upon the degree of success that various attrition reduction procedures may obtain. In spite of the many investigations dealing with the college dropout, many issues remain unsolved. The following questions might generate further research with regard to the phenomenon of student attrition:

1) Is the demand to deal with the problem of student attrition really too rational, too old fashioned, and too out-worn for our society today?

2) Do we weaken institutions of two-year college education through tolerance of mass student exits from the college setting or is this just another feature of contest mobility in American society?

3) If our basic trust in the community college is to educate all students who desire education through the fourteenth year, is it reasonable to expect that student attrition tendency can be lowered within an institutional framework of open-door admissions policies and diverse student expectations?

These questions only serve to restate the idiom that much work remains to be done in both conceptalization of the attrition phenomenon in higher education and application of various administrative techniques to the problem.

# APPENDIX I

## ATTRITION CONFERENCE QUESTIONNAIRE

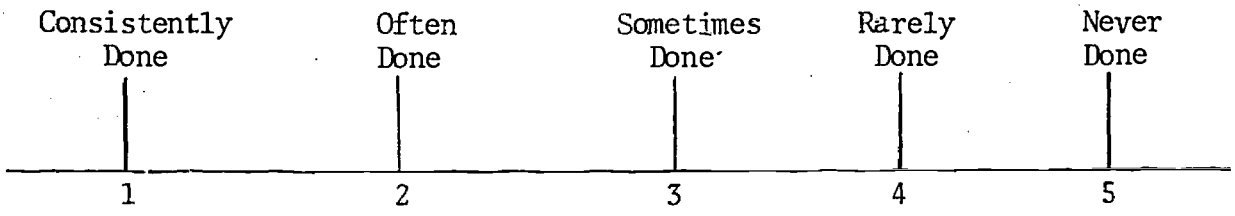
GT-70

# ATTRITION CONFERENCE QUESTIONNAIRE

This questionnaire has been prepared in order that systematic research assessment can be made of attrition practices and techniques currently in use at institutions participating in the GT-70 Conference on Student Attrition, May 8 - 9, at the National 4-H Center in Chevy Chase, Maryland. You are listed as a registrant and we are asking that you complete this questionnaire as part of your conference activity. If you are able to complete the questionnaire before May 4, please forward the completed document by mail to: Dr. Richard L. Alfred, Associate Director of Educational Planning and Research, Metropolitan Junior College District, 560 Westport Road, Kansas City, Missouri 64111. If you are not able to complete the questionnaire by this date, please submit the document to conference representatives at the time you register for the conference.

## Instructions

Please read each statement carefully and select the one response category for each statement which most closely approximates the current level of activity of your institution relative to the problem at hand. Record the number of the category in the space that is provided to the left of each statement. Use the following scale.




Institution _____

Name _____ Position _____

I. Pre-Enrollment Activity

___ 1. High school activities (i.e., athletics, student government, clubs, etc.) of entering students are reviewed and check as a routine part of the formal admission process at your institution.

___ 2. Articulation is carried out between counselors of your institution and neighboring high schools relative to academic performance and learning potential of entering freshmen students.

___ 3. Entering students are counseled prior to initial enrollment (by college faculty and counselors) about occupational interests and curriculum program needs.

___ 4. Administrative personnel at your institution sponsor and/or participate in a number of "college nights" for pre-college students during the course of the academic year.

___ 5. Academic testing and occupational placement testing is conducted at your institution prior to final enrollment of entering freshmen students.

___ 6. Entering freshmen students are counseled by college representatives before final enrollment relative to their scores on standardized local and national tests (ACT test, CEEB, SCAT test, etc.).

___ 7. Group counseling sessions are conducted with entering freshmen students (prior to enrollment) relative to current issues in American society, as well as current problems facing students in higher education.

___ 8. A formal college orientation program for entering students is conducted at your institution at the beginning of each semester.

___ 9. Prediction instruments (i.e., attitudinal assessment questionnaires, personal opinion scales, personality inventories, etc.) are used to predict dropout potential for selected students at your institution.

___10. Basic student characteristics (age, sex, socioeconomic status, attitudes toward attending college) are collected from students at your institution on a semester-by-semester or quarter-by-quarter basis.

II. Enrollment Activity

___11. Periodic counseling sessions (mandatory or non-mandatory) with all students are undertaken by the student personnel staff over the course of an academic semester.

___12. During the course of a semester, efforts are made to obtain research data from students relative to their perceptions of the college environment.

___13. Faculty members in your institution assist the counseling staff in identification and treatment of high risk students and/or potential dropouts.

___14. The counseling staff at your institution holds "seminar-type" small group discussions on a periodic basis with students who have demonstrated "dropout" potential.

___15. Administrative techniques are utilized in your isntitution which prevent students from formal withdrawal without first seeing a counselor.

___16. Immediate counseling services (personal, social, and academic counseling services) are accorded students upon request during the academic semester.

___17. During the course of an academic semester, various testing instruments (i.e., vocational interest battery, personality inventory, aptitude tests, etc.) are directly administered to students in your institution as the need arises.

III. Post-Enrollment Activity

___18. Prior to withdrawal or at time of withdrawal, students in your institution are required to see a counselor.

___19. At time of withdrawal, parents of students executing withdrawal procedures are contacted and a discussion is held between institutional representative, student, and parents.

___20. Prior to withdrawal or at time of withdrawal, students in your institution are required to provide information (by questionnaire, interview, or other techniques) relative to their reasons for leaving.

___21. Following withdrawal from your institution, students who have not informed institutional representatives of their leaving are contacted by telephone or mail regarding information as to reasons for termination of study.

___22. Information concerning reasons for withdrawal of students at your institution is circulated to faculty and administrative personnel and feedback from these individuals is required.

___23. Research data secured relative to reasons for student withdrawal at your institution is written and published in report form and circulated to institutional staff and external public agencies.

IV. Please use the space below to describe additional practices and techniques which are used in your institution to reduce student attrition.

# SELECTED BIBLIOGRAPHY

BIBLIOGRAPHY


1. Abe, Clifford and John L. Holland. "A Description of College Freshmen: I. Students with Different Choices of Major Field," ACT Research Report No. 3, American College Testing Program, Iowa City, Iowa, May 1965.

2. Aiken, James. A Comparison of Junior College Withdrawees, University of Missouri, 1968 (ERIC ED 023 389).

3. Alfred, Richard L. "1971-1972 Student Attrition: Antecedent and Consequent Factors," October 1972 (ERIC ED 070 435).

4. Anderson, Bert D. Comparison of Enrolled and Non-Enrolled Applicants for Modesto Junior College, Fall 1966, Modesto Junior College, California, September 1967 (ERIC ED 014 303).

5. Bard, Harry, Leon L. Lerner, and Leona S. Morris. "Operation: Collegiate Horizons in Baltimore," Junior College Journal, September 1967.

6. Carey, James T. Why Students Drop Out, Center for the Study of Liberal Education for Adults, Chicago, Illinois, 1953.

7. Chambers, Frank M. "A College Admission Policy to Reduce Attrition," Junior College Journal, January 1961.

8. Chase, Clinton T. The University Freshman Dropout, Report CRP-S-D38, Indiana University, Bloomington, Illinois, 1965 (ERIC ED 003 672).

9. Cooley, William W. and Susan Becker. "The Junior College Student," The Personnel and Guidance Journal, January 1966 (ERIC ED 012 609).

10. Cooper, Leland R. "The Difficulty of Identifying the Real Transfer Student," Junior College Journal, December 1967 - January 1968.

11. Cowhig, James D. "Why Do They Leave College?" The School Review, Autumn 1963.

12. Cross, K. Patricia. "Higher Education's Newest Student," Junior College Journal, September 1968.

13. Demos, George D. "Analysis of College Dropouts - Some Manifest and Covert Reasons," Personnel and Guidance Journal, March 1968.

14. Eells, Walter C. "Student Mortality in Junior Colleges," Junior College Journal, November 1956.

15. Ellish, Arthur D. "The Effects of Attitude on Academic Achievement," Junior College Journal, March 1969.

16. Forrest, Donald V. "High School Underachievers in College," The Journal of Educational Research, December 1967.

17. Gadzella, Bernadette M. and Grace Bentall. "Differences in High School Academic Achievements and Mental Abilities of College Graduates and College Drop-Outs," College and University, Spring 1967.

18. Gekoski, Norman and Solomon Schwartz. "Student Mortality and Related Factors," Journal of Educational Research, January 1961.

19. Gleazer, Edmund J. Jr. "Junior College Told: 'Woo Disappearing Dropouts'," Gainsville Sun, October 29, 1969, pp. 1-2.

20. Goetz, Walter and Donald Leach. "The Disappearing Student," Personnel and Guidance Journal, May 1967.

21. Hakanson, John W. Selected Characteristics, Socioeconomic Status, and Levels of Attainment of Students in Public Junior College Occupation-Centered Education, University of California - Berkeley, School of Education, April 30, 1967 (ERIC ED 013 644).

22. Hillcary, Helena. A Comparative Study of Official and Unofficial Withdrawals at Los Angeles Valley College, Evening Division, Spring Semester 1963. Los Angeles Valley College, Van Nuys, California. December 3, 1963 (ERIC ED 012 187).

23. Hoyt, Donald P. and Leo Mundy. "Academic Description and Prediction in Junior Colleges," Report ACT-RR-10, American Testing Service, Iowa City, Iowa, 1966 (ERIC ED 011 196).

24. Hughes, Harold G. et al. A Follow-Up Study on Discontinuing Students at Grossmont College, Grossmont College, El Cajon, California, undated (1967?) (ERIC ED 019 085).

25. Hurkamp, Rosemary C. "Differences in Some Initial Attitudes of Students Who Complete and Students Who Drop Out in the Wellesley, Massachusetts Adult Education Program," Report RR-7-8073, Office of Education, U. S. Department of Health, Education, and Welfare, January 10, 1968.

26. Iffert, Robert E. and Betty S. Clarke. College Applicants Entrants Dropouts, OE-54034, Office of Education, U. S. Department of Health, Education, and Welfare, Washington, D. C., 1965.

27. Jones, Emmett L. Results of a Study of Aid in Defining "Success" for Students at the Southeast Branch of the Chicago City College, February 1969 (ERIC ED 028 777).

28. Knoell, Dorothy M. "Needed Research on College Dropouts," Part 2 in James R. Montgomery, Proceedings of the Research Conference on College Dropouts, University of Tennessee, Knoxville, 1964 (ERIC ED 033 420).

29. _____. "Are Our Colleges Really Accessible to the Poor?" Junior College Journal, October 1968.

30. Knoell, Dorothy M. "Who Goes to College in the Cities?" Junior College Journal, September 1969.

31. Knop, Ed. "From a Symbolic-Interactionist Perspective: Some Notes on College Dropouts," Journal of Educational Research, July-August 1967.

32. Koelsche, Charles L. "A Study of the Student Drop-Out Problem at Indiana University," Journal of Educational Research, January 1956.

33. Lombardi, John, "A Comment on 'Student Mortality in Junior Colleges'," Junior College Journal, February 1967.

34. Lynch, Donald F. An Analysis of Dropouts in Selected Public Junior Colleges of Florida, The Pennsylvania State University (Unpublished doctoral dissertation - Microfilm), August 1959.

35. Marsh, Lee M. "College Dropouts - A Review," Personnel and Guidance Journal, January 1966.

36. Matson, Jane E. Characteristics of Students Who Withdrew from a Public Junior College, Stanford University (Unpublished doctoral dissertation - Microfilm), June 1965.

37. McGeever, John and R. L. Burton. A Survey of Dropouts and Discontinuing Students and Their Attitudes Toward Selected Aspects of the Junior College Program, Palomar College, San Marcos, California, May 1965 (ERIC ED 013 642).

38. Montgomery, James R. Proceedings of the Research Conference on College Dropouts, University of Tennessee, Knoxville, 1964 (ERIC ED 003 420).

39. O'Banion, Terry. "Rules and Regulations: Philosophy and Practice," Junior College Journal, April 1969.

40. O'Brian, W. E. A Study of Student Levels of Satisfaction with Community College and Senior College Instruction and Services, Northern Illinois University (Unpublished doctoral dissertation - Microfilm), September 1967.

41. Office of Education, "Why Do College Freshmen Drop Out?" American Education U. S. Department of Health, Education, and Welfare, May 1967.

42. Panos, Robert J. and Alexander W. Astin. "Attrition Among College Students," ACE Research Report Vol. 2 No. 4, American Council on Education, Washington, D. C., 1967 (ERIC ED 014 113).

43. Pearce, Frank C. Dropout Rates, Modesto Junior College, California, January 14, 1966 (ERIC ED 011 356).

44. Pervin, L. A. Dissatisfaction with College and the College Dropout: A Transactional Approach, Princeton University, OE-BR-6-8421, Office of Education, U. S. Department of Health, Education and Welfare, August 1967 (ERIC ED 021 335).

45. Raines, Max R. "The Student Personnel Situation," Junior College Journal, February 1966.

46. Reed, Horace B. "College Students' Motivations Related to Voluntary Dropout and Under-Overachievement," Journal of Educational Research, May-June 1968.

47. Rose, Harriett A. "Prediction and Prevention of Freshman Attrition," Journal of Counseling Psychology, Winter 1965.

48. Roueche, John E. "Open-Door College: The Problem of the Low Achiever," The Journal of Higher Education, November 1968.

49. _____. "Research Studies of the Junior College Dropout," Junior College Research Review, American Association of Junior Colleges, Washington, D. C., October 1967 (ERIC ED 013 659).

50. _____ and John R. Boggs. Junior College Institutional Research: The State of the Art, American Association of Junior Colleges, Washington, D. C., 1968.

51. _____ and David M. Sims. "Open Door Colleges or Open Door Curriculums?" Junior College Journal, February 1968.

52. Samenow, Staton E. "Studying the College Dropout," Teachers College Record, May 1967.

53. San Jose City College. Students Who Were Enrolled Fall 1967 and Did Not Return for Spring 1968, San Jose City College, California, 1968 (ERIC ED 022 463).

54. Sensor, Phyllis. Follow-Up of 1965 Freshmen Who Did Not Return for Fall Semester 1966, Riverside City College, California, May 1967 (ERIC ED 014 987).

55. Stoops, John A. "Teachers for the Community College," in John A. Stoops (Ed.), The Community College in Higher Education, Lehigh University, Bethlehem, Pennsylvania, 1965.

56. Suczek, Robert F. and Elizabeth Alfert. Personality Characteristics of College Dropouts, University of California - Berkeley, 1966 (ERIC ED 010 101).

57. Summerskill, John. "Dropouts from Colleges," in N. Sanford (Ed.), College and Character, John Wiley & Sons, Inc., New York, 1962.

58. Taylor, Ronald G. et. al. "Interest Patterns of Successful and Non-Successful Male Collegiate Technician Students," Journal of Educational Research, May-June 1967.

59. Thornton, James W. Jr. The Community Junior College, Second Edition, John Wiley and Sons, Inc., New York, 1966.

60. Trent, James W. and Leland L. Medsker. Beyond High School, Jossey Bass, Inc., San Francisco, 1968.

61. Vaughan, Richard P. "College Dropouts: Dismissed vs. Withdrew," Personnel and Guidance Journal, March 1968.

62. Williams, Vernon. "The College Dropout: Qualities of His Environment," Personnel and Guidance Journal, May 1967.